

**SUPPLEMENTAL ANALYSES OF
MAGNETIC FIELD PERSONAL EXPOSURE DATA FROM
THE KAISER SPONTANEOUS ABORTION STUDY**

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**SUPPLEMENTAL ANALYSES OF
MAGNETIC FIELD PERSONAL EXPOSURE DATA FROM
THE KAISER SPONTANEOUS ABORTION STUDY**

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1.0 INTRODUCTION

Magnetic-field personal exposure measurements (PE) were collected from 1043 participants enrolled in a large epidemiological study of pregnant women in the San Francisco area – the Kaiser Spontaneous Abortion (SAB) Study. The PE data are contained in the Kaiser SAB data set along with subject-related data. The subject-related data include information about the environment where the measurements were collected, about the subject's residence and neighborhood, and about the electrical distribution system near the residence. Analyses of the exposure data have been reported in support of the epidemiological finding that an increased risk of spontaneous abortion is associated with magnetic field exposures above 16 mG during a 24-hour period (Li et al, 2002).

These epidemiological results have stimulated additional interest in examining the Kaiser SAB Study exposure data, especially with respect to the exposures greater than 16 mG that were found to be associated with an increased risk of spontaneous abortion. This interest and a recognition that the data set, in and of itself, represented a large and comprehensive record of magnetic field PE data for women prompted the California Department of Health Services (DHS), sponsor of the Kaiser SAB Study, to initiate additional analyses of the Kaiser SAB data. They contracted with T. Dan Bracken, Inc., who had constructed the data set to perform the analyses described in this report. Specifications for the analyses were developed in response to requests and suggestions by Dr. Raymond Neutra of DHS. Data management and analyses were performed by Russell Senior of T. Dan Bracken, Inc. following these specifications.

The structure and contents of the Kaiser SAB data set are documented in Senior [1999].

2.0 METHODS

2.1 Measurement Protocols

The subjects wore an EMDEX-II PE meter (Enertech Consultants, Campbell, CA) that recorded broadband and harmonic fields at 10-second intervals over a 24-hour period. Subjects also kept a simple location diary and recorded their (or their meter's) environment as: Home (not in-bed), In-bed, Travel, Work, Other or Not-worn. During the interviews before and after the measurement period, subjects provided information about their activities, appliance use and residence.

Subjects indicated whether the periods spent in an environment during measurements were "typical" for other days during their pregnancy. If time spent in any environment was indicated as "atypical" during the measurement day, then the whole day was considered "atypical". An indication of "Can't say" whether the time spent was typical was considered equivalent to "typical".

2.2 Sample Selection

There were 1043 subjects in the Kaiser SAB Study with personal exposure data. Of the 1043 subjects, 892 subjects had valid PE data and a valid diary, 71 more had valid PE data and a suspect diary, 54 had suspect PE data, 9 had suspect diary and suspect data, 11 had suspect diary and a subject problem, and 6 had suspect diary, suspect data and a subject problem. Subjects with suspect data and/or a subject problem were excluded from the analyses described in this report. For analyses addressing whole-day exposures, the 71 subjects with suspect diaries were included. Three subjects were excluded who had less than 22 hours of PE data. For analyses of whole-day exposure, 960 subjects were used. For analyses of exposures which involved periods in specific environments that would be compromised by invalid diary information, subjects with suspect diary have been excluded, and only 892 subjects were included. Missing or inapplicable data for a particular analysis might reduce the number of subjects further.

Our sample differs slightly from the subjects analyzed in the Kaiser epidemiological study (Li et al, 2002). In that case they had additional information about the nature of subject problems and had a less stringent criterion for exclusion of data with subject problems.

The quantity of PE measurements per subject included in the analyses for this report ranged from 22 to 24 hours, with a median of 24 hours. For subjects with less than a full 24-hours of PE measurements, analyses involving fraction of time were prorated.

Data on individual subjects included the location of the exposures as recorded in the diary and whether the day was deemed typical or not by the subject. Other personal data and/or reproductive outcome were not available for these analyses.

2.3 Statistical Software

The analyses and graphics (with the exception of the time-series plots) were produced using the R statistical software (www.r-project.org). R is a language and environment for statistical computing and graphics. It is a Free Software project which is similar to the S language and

environment developed at Bell Laboratories (formerly AT&T, currently Lucent Technologies) by John Chambers and colleagues. R can be considered as another implementation of S. R provides a wide variety of statistical (linear and nonlinear modeling, classical statistical tests, time-series analysis, classification and clustering, etc.) and graphical techniques, and is highly extensible. The S language is often the vehicle of choice for research in statistical methodology, and R provides a Free Software route to participation in that activity.

For some analyses box and whisker plots are used to describe the distribution of a variable. The box and whisker diagram was invented by John Tukey [1977]. A box and whisker consists of a box with ends at the first and third quartiles, a line within the box indicates the median, and whiskers extending to the furthest data point within 1.5 times the inter-quartile range from the edge of the box. Data beyond the end of the whiskers are indicated with circles.

2.4 Summary measures

Summary measures were generated from the 24-hour time-series exposure data. The principal summary measures used in these analyses are given in Table 2.4. Fourteen summary measures were selected for more extensive analysis: they are denoted the “matrix” summary measures and are marked in the table with a “†”. All summary measures were computed using the broadband magnetic field unless otherwise noted. For some analyses, summary measures were computed for time in particular environments during the 24-hour day. Definitions for many of the summary measures can be inferred from their names. Those with less conventional definitions are described below:

Table 2.4: Selected Summary Measures for 24-hour PE data.

24-hour Summary Measures		
Broadband TWA†, mG	Longest period > 2000 mG, sec.	Maximum†, mG
Harmonic TWA†, mG	Fraction of measurements > 0.5 mG	99 th percentile†, mG
Rate-of-change (RCM)†, mG	Fraction of measurements > 1 mG	95 th percentile†, mG
Adjusted rate-of-change (RCM*)†	Fraction of measurements > 2 mG	90 th percentile†, mG
Number of sudden field changes > 2.5 mG†	Fraction of measurements > 4 mG†	75 th percentile, mG
Number of sudden field changes > 5 mG†	Fraction of measurements > 8 mG	50 th percentile, mG
Number of sudden field changes > 10 mG	Fraction of measurements > 16 mG†	25 th percentile, mG
Longest period > 2 mG, sec.	Fraction of measurements > 32 mG	5 th percentile, mG
Longest period > 4 mG†, sec.	Fraction of measurements > 64 mG	Minimum, mG
Longest period > 16 mG†, sec.	Fraction of measurements > 2000 mG	Number of episodes with maximum > 16 mG
Longest period > 64 mG, sec.	Fraction of time in environments	Number of episodes in environments

† Summary measure selected for more extensive analysis

Broadband time-weighted average (TWA): Mean of broadband (40–800 Hz) resultant field measurements during the period of interest.

Harmonic TWA: Mean of broadband harmonic (100–800 Hz) resultant field measurements during the period of interest.

Rate-of-change metric (RCM): The square root of the mean squared difference in resultant magnetic field between chronologically adjacent measurements in the time-series data.

RCM*: The normalized rate-of-change metric is derived by dividing the RCM by the arithmetic standard deviation of the measurements for the period.

Fraction of measurements above X mG: The fraction of measurements in a period that are above a threshold of X mG. The fraction is expressed as a number between 0 and 1. The threshold values of X used in these analyses include: 0.5, 1, 2, 4, 8, 16, 32, 64 and 2000 mG.

Longest period exceeding Y mG: The duration of the longest contiguous period where measurements are not observed to fall below the threshold of Y mG. The threshold values of Y used in these analyses include: 2, 4, 16, 64 and 2000 mG. Durations are in increments of 10 seconds, the sampling interval used by the exposure meter in the study.

Number of sudden field changes above Z mG: The number of times that the absolute difference in magnetic field between two chronologically adjacent measurements divided by the sum of the two magnetic field measurements exceeds 0.25, and the absolute difference also exceeds the threshold of Z mG. The threshold values of Z used in these analyses include: 2.5, 5 and 10 mG.

Episode: An episode is a series of measurements in which no measurement deviates from the starting measurement by more than ± 20 percent. They represent a period of relative stability. Summary measures for individual episodes are duration, average magnitude, and maximum field.

Number of episodes with maximum > 16 mG: Several analyses looked at a particular subset of episodes, those in which the maximum field exceeded 16 mG. Subjects were categorized by the number of episodes with maximums exceeding 16 mG that they experienced during their 24-hour day.

2.5 Analyses

The following analyses were performed on the Kaiser SAB data set:

- 1) Construct cumulative distributions for 31 summary measures.
- 2) Construct selected scatter plots to investigate correlation between summary measures.
- 3) Compute rank-order correlation coefficients for the 14 “matrix” summary measures.
- 4) Perform multi-linear regression for each of the 14 “matrix” summary measures with the 24-hour summary measure being the dependent variable and with the

- corresponding summary measures from the five environments (Home, In-bed, Work, Travel and Other) being the independent variables.
- 5) Compare the cumulative distributions of exposure in the Kaiser SAB data set with those from the RAPID 1000-Person Study [Zaffanella and Kalton, 1998].
 - 6) Compare the distributions of “typical” and “atypical” days for the 14 “matrix” summary measures.
 - 7) Compare the distributions of women with time in Work environment with those without time in Work environment for the 14 matrix summary measures.
 - 8) Compare the distributions of women with maximum fields above 16 mG with those with maximum fields below 16 mG for the 14 “matrix” summary measures.
 - 9) Examine the consistency of the “fraction of time above 16 mG” summary measure across EMDEX serial numbers.
 - 10) Investigate the interaction of the 14 “matrix” summary measures with the neighborhood characteristics of wire-code category, transformer configuration (delta or wye), block type, street type and proximity to electric trains, for both 24-hour measurements and measurements at Home (including the Home and In-bed environments)
 - 11) Investigate the ability of the front-door spot measurement to predict the following indoor measurements: Mean indoor spot (average of kitchen, bedroom and other room centers), Home TWA, Home RCM, Home RCM*, and Home longest period > 2 mG.
 - 12) Investigate whether high exposures ($TWA > 2$ mG and > 4 mG) are due to many short encounters with high fields or to longer duration exposures to less elevated fields.
 - 13) Investigate the sensitivity of episodes with maximum > 16 mG duration (seconds), accumulated exposure (mG-seconds) and average exposure (mG) to the number of such episodes experienced by the subject during the 24-hour day.
 - 14) Investigate the relationship between the number of episodes with maximum > 16 mG that a subject experiences and various summary measures characterizing those episodes
 - 15) Describe the episodes that contribute most to exposures above 2 mG-days and 4 mG-days by comparing the average magnetic field of those episodes with the number of such episodes and their average length.
 - 16) Sample plots of time-series exposure data to satisfy criteria involving the frequency of episodes with maximum > 16 mG.

3.0 RESULTS

3.1 Cumulative Distributions

Cumulative distributions for 31 summary measures from the 960 subjects were computed. Descriptive statistics for the summary measures of each distribution are given in Table 3.1.

Cumulative distributions for the 24-hour summary measures are shown in Figures 3.1.1 through 3.1.33. The diagonal line in the plot indicates a normal distribution (or log-normal in cases where the vertical axis has a log scale) with the same mean and standard deviation as the data being presented. The darker data points (red) represent subjects with valid data and with valid diaries while the lighter data points (orange) represent subjects with valid data and suspicious diaries. Since suspicious diaries should not affect analyses of 24-hour data, they have been included.

Figures 3.1.11 and 3.1.33 represents the same data as Figures 3.1.10 and 3.1.32, respectively, except that the vertical scale has been expanded to show detail at the lower end.

Table 3.1: Statistical descriptors for 24-hour summary measures

Parameter	N	Mean	Standard Deviation	Geometric Mean	Minimum	5th %ile	25th %ile	Median	75 th %ile	95th %ile	99th %ile	Maximum
TWA, mG	960	1.49	1.38	1.19	0.14	0.47	0.77	1.14	1.79	3.50	6.27	18.23
Harmonic TWA, mG	960	0.34	0.37	0.25	0.013	0.07	0.16	0.24	0.39	0.85	2.31	3.64
RCM	960	1.29	3.07	0.81	0.08	0.27	0.50	0.73	1.21	3.31	10.46	55.49
RCM*	960	0.603	0.239	0.550	0.074	0.245	0.423	0.594	0.761	0.997	1.241	1.400
Fraction of measurements > 0.5 mG	960	0.6549	0.2598	0.5802	0.0118	0.1841	0.4446	0.7010	0.8868	0.9924	1.0000	1.0000
Fraction of measurements > 1 mG	960	0.3951	0.2640	0.2910	0.0038	0.0559	0.1630	0.3505	0.5800	0.8895	0.9889	1.0000
Fraction of measurements > 2 mG	960	0.1877	0.2050	0.0969	0.0001	0.0111	0.0413	0.1051	0.2728	0.6124	0.9305	1.0000
Fraction of measurements > 4 mG	960	0.0694	0.1250	NA	0	0.0023	0.0095	0.0218	0.0674	0.3076	0.6149	0.9994
Fraction of measurements > 8 mG	960	0.0178	0.0545	NA	0	0.0001	0.0014	0.0037	0.0106	0.0828	0.2581	0.9438
Fraction of measurements > 16 mG	960	0.0041	0.0206	NA	0	0	0	0.0005	0.0019	0.0143	0.0535	0.4419
Fraction of measurements > 32 mG	960	0.0015	0.0116	NA	0	0	0	0	0.0003	0.0045	0.0207	0.2382
Fraction of measurements > 64 mG	960	0.0005	0.0058	NA	0	0	0	0	0	0.0008	0.0077	0.1667
Fraction of measurements > 2000 mG	960	7.24E-07	1.58E-05	NA	0	0	0	0	0	0	0	0.0005
Longest period > 2 mG, seconds	960	6001	11002	1697	10	120	500	1730	5213	31480	49713	86400
Longest period > 4 mG, seconds	960	2139	5748	NA	0	40	130	375	1423	9854	33348	70940
Longest period > 16 mG, seconds	960	129	539	NA	0	0	0	20	50	540	2496	8840
Longest period > 64 mG, seconds	960	19.5	172	NA	0	0	0	0	0	30	264	3110
Longest period > 2000 mG, seconds	960	0.1	1.1	NA	0	0	0	0	0	0	0	30
Sudden field changes > 2.5 mG	960	92	94	NA	0	15	43	71	114	212	473	1343
Sudden field changes > 5 mG	960	40	59	NA	0	3	14	25	46	106	270	1037
Sudden field changes > 10 mG	960	12.7	27.1	NA	0	0	2	6	13	44	111	528
Minimum magnetic field, mG	960	0.07	0.18	0.02	0.006	0.006	0.006	0.01	0.11	0.23	0.59	3.39
5th percentile, mG	960	0.32	0.40	0.21	0.006	0.006	0.14	0.23	0.38	0.79	1.75	7.82
25th percentile, mG	960	0.60	0.65	0.45	0.006	0.14	0.26	0.44	0.70	1.48	3.52	11.50
50th percentile, mG	960	1.01	1.01	0.76	0.11	0.26	0.47	0.74	1.18	2.71	5.28	15.10
75th percentile, mG	960	1.76	1.73	1.30	0.14	0.42	0.78	1.24	2.09	4.62	8.20	22.30
90th percentile, mG	960	2.87	3.64	2.13	0.18	0.73	1.31	2.03	3.42	7.40	12.65	70.90
95th percentile, mG	960	3.87	4.40	2.94	0.23	1.06	1.82	2.81	4.48	9.32	16.59	76.50
99th percentile, mG	960	7.98	12.52	5.82	0.59	2.14	3.93	5.42	8.12	18.90	55.29	254.40
Maximum magnetic field, mG	960	56.28	179.24	29.94	2.14	8.54	15.85	26.90	48.70	157.19	468.38	3620.80
Number of episodes w/ max > 16 mG	960	9.3	30	NA	0	0	0	2	8	34	110	668

Figure 3.1.1: Cumulative distribution of 24-hour TWA

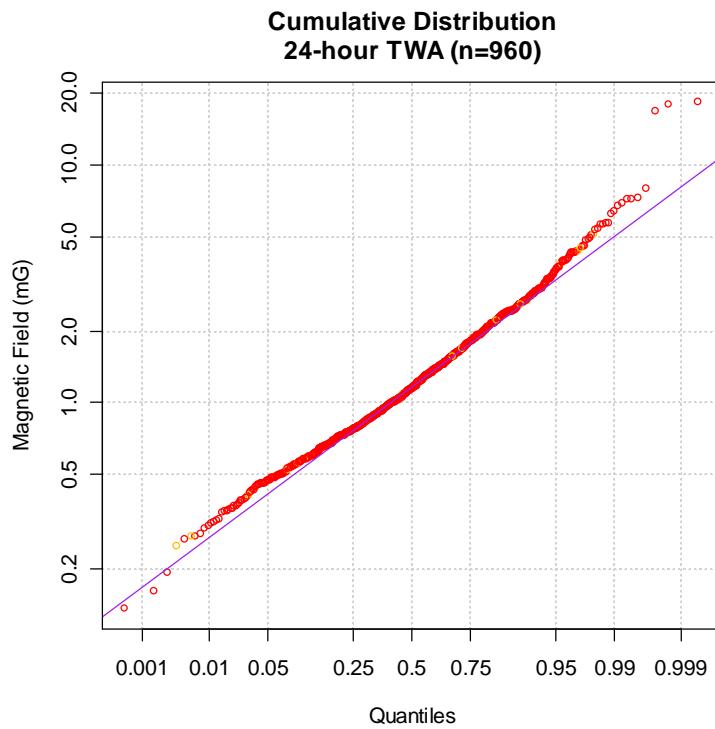


Figure 3.1.2: Cumulative distribution of 24-hour Harmonic TWA

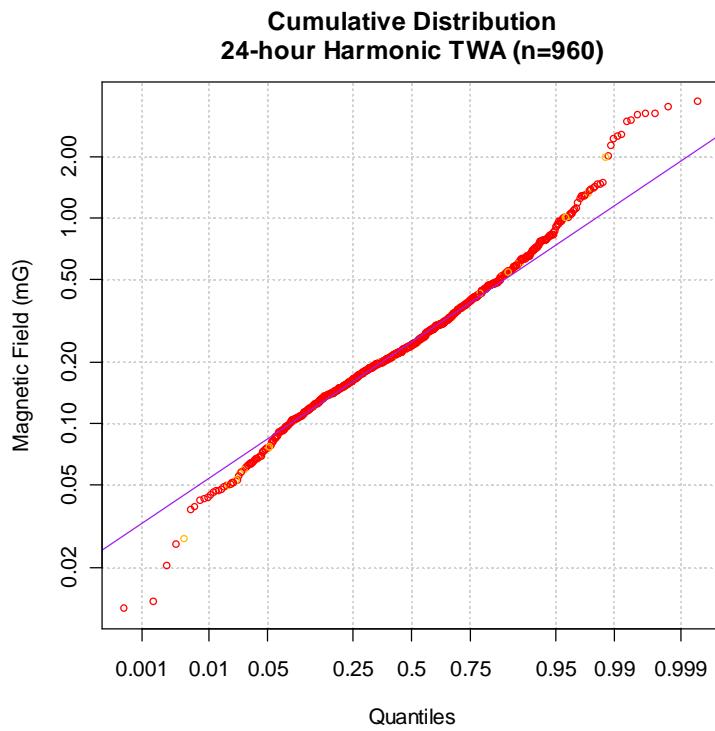


Figure 3.1.3: Cumulative distribution of 24-hour Rate-of-Change Metric (RCM)

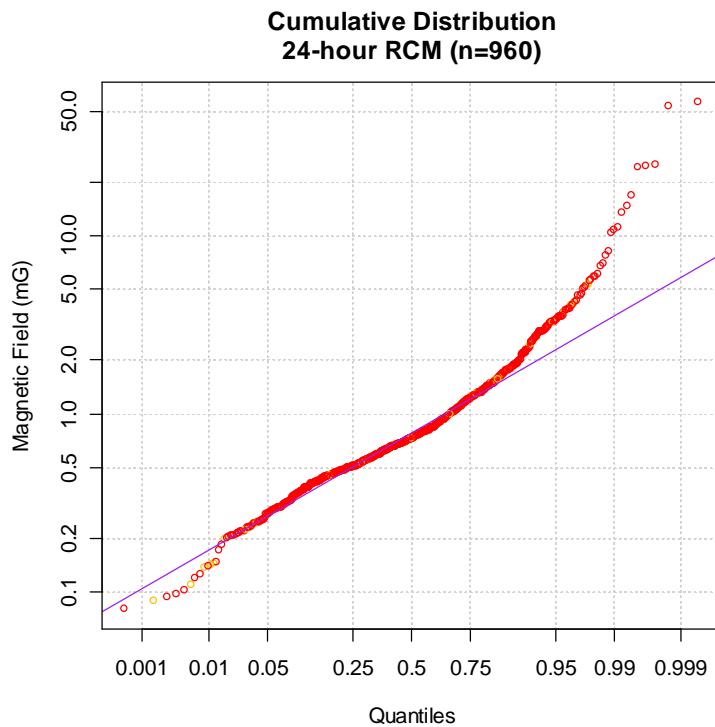


Figure 3.1.4: Cumulative distribution of 24-hour Dimensionless Rate-of-Change Metric (RCM*)

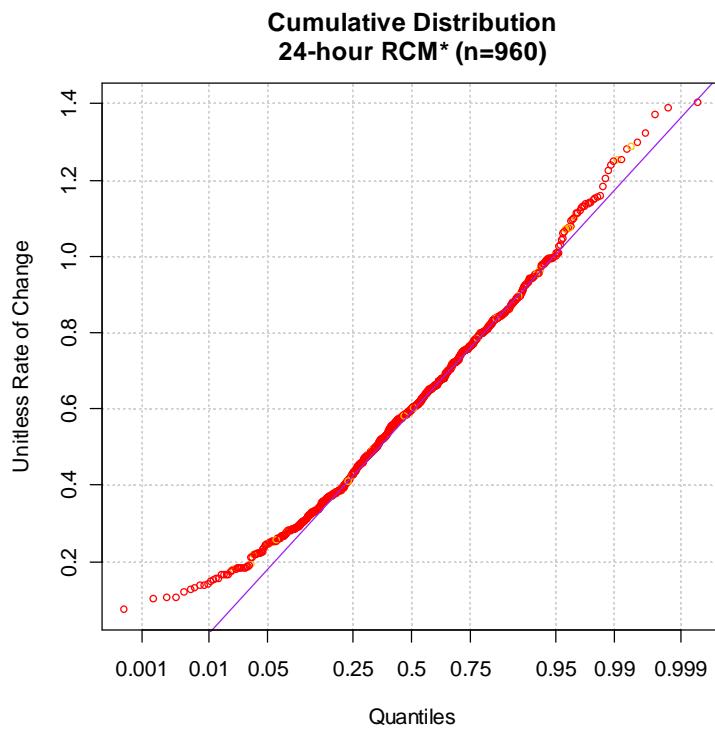


Figure 3.1.5: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 0.5 mG

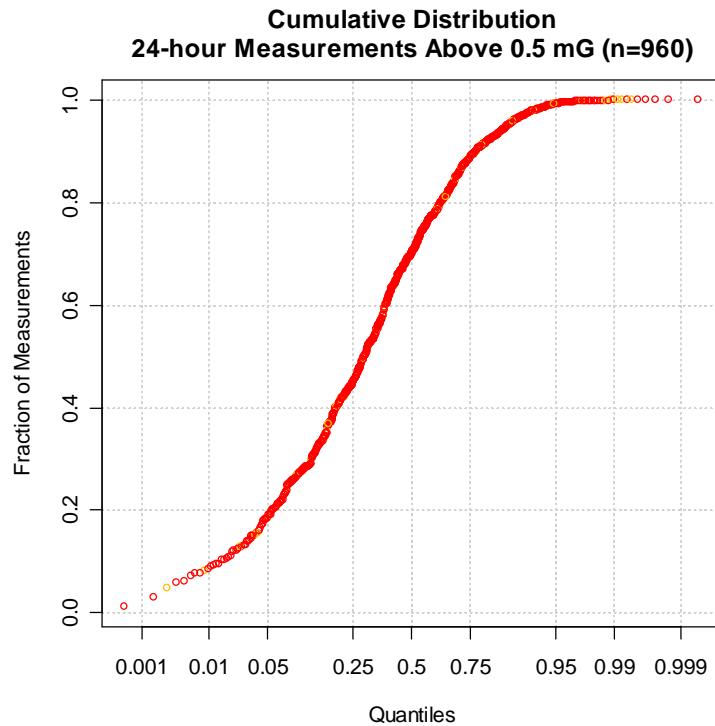


Figure 3.1.6: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 1 mG

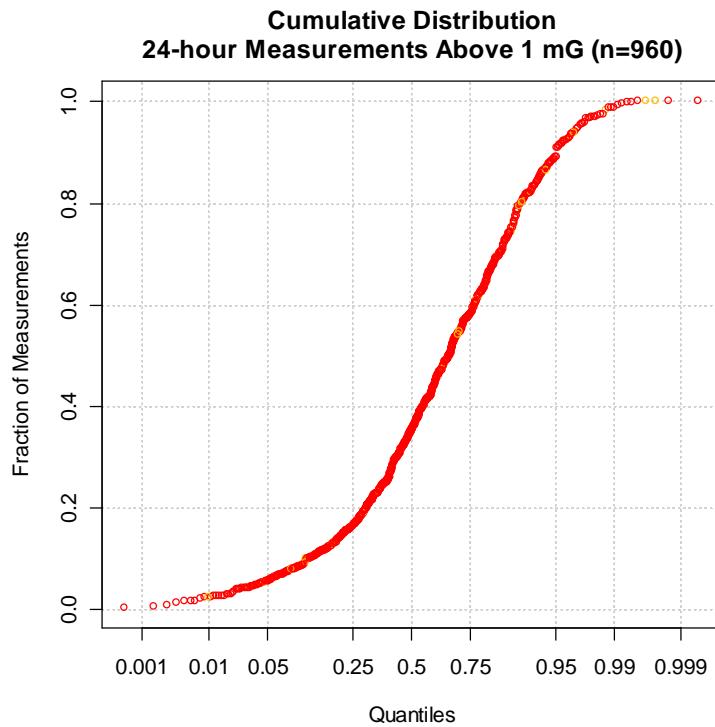


Figure 3.1.7: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 2 mG

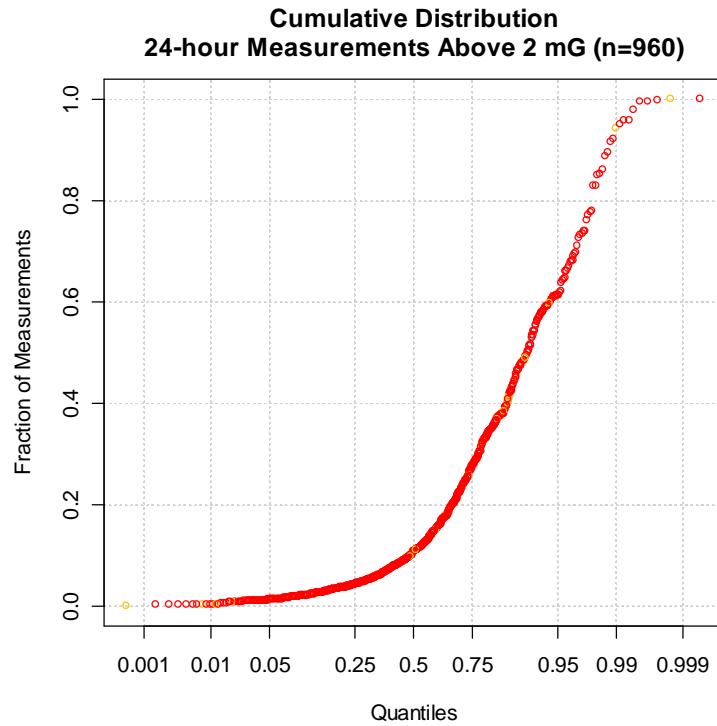


Figure 3.1.8: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 4 mG

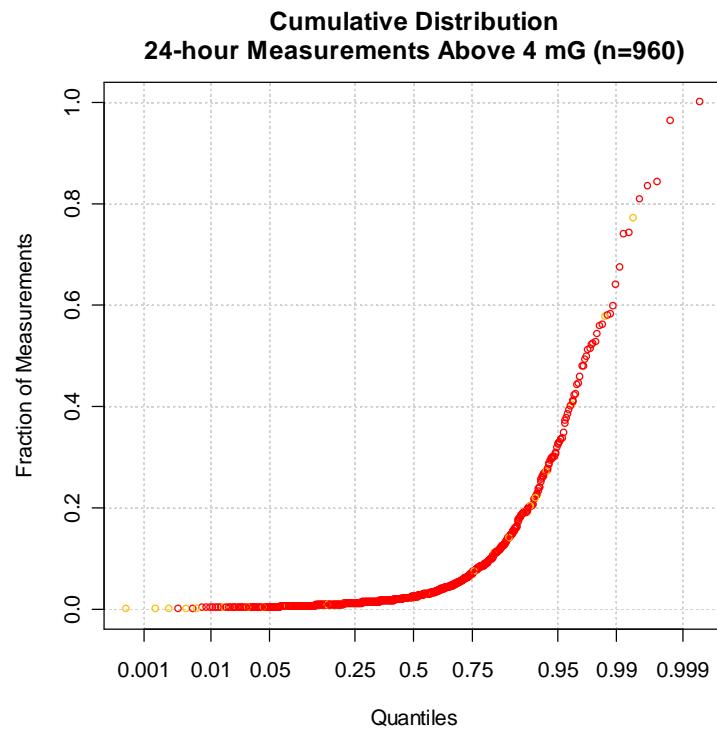


Figure 3.1.9: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 8 mG

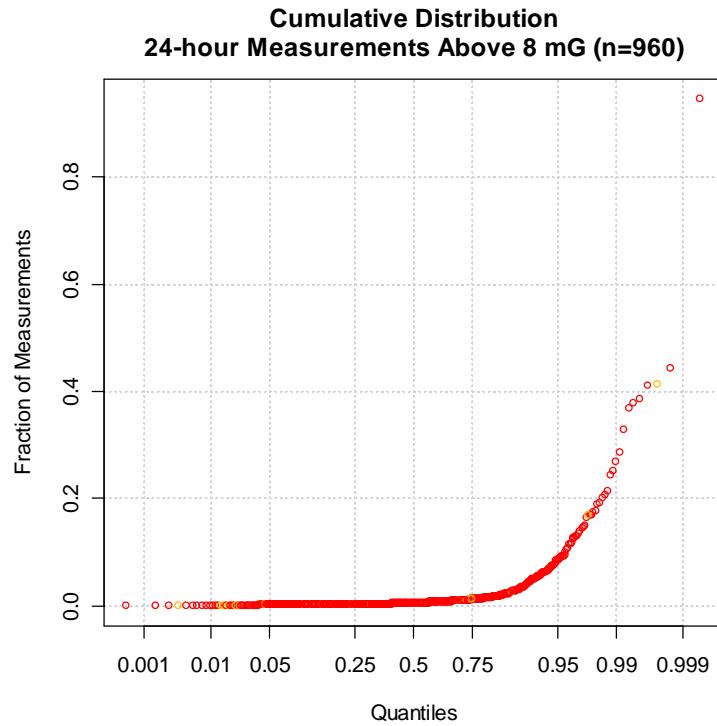


Figure 3.1.10: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 16 mG

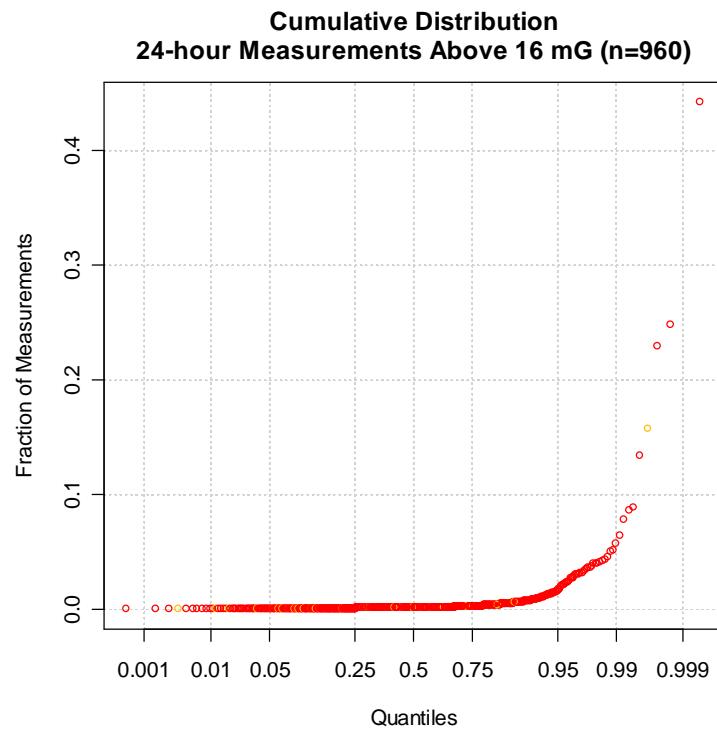


Figure 3.1.11: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 16 mG (expanded scale)

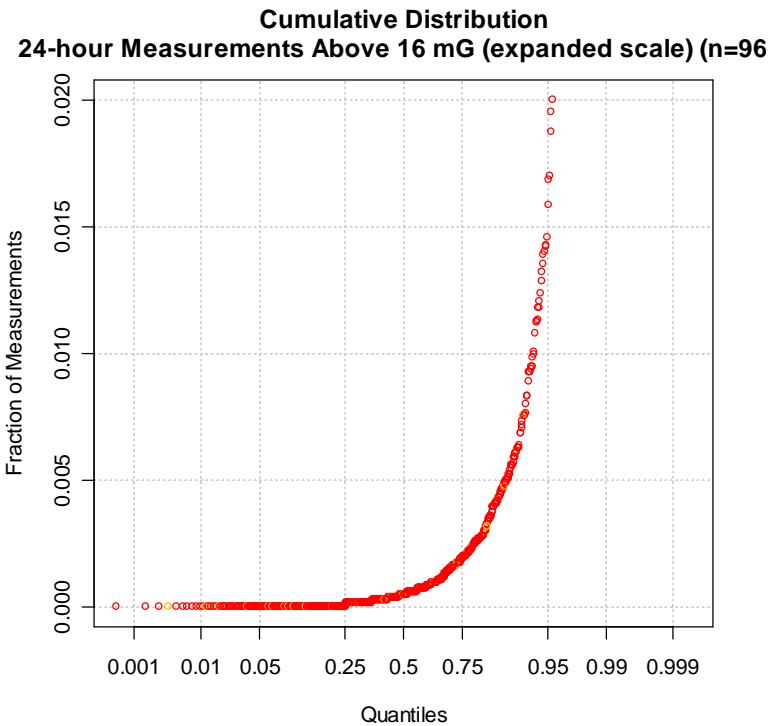


Figure 3.1.12: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 32 mG

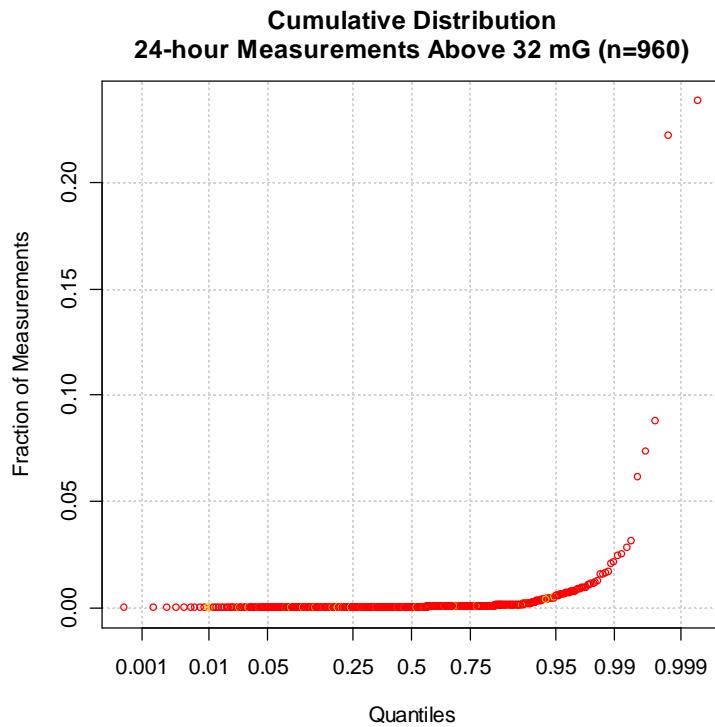


Figure 3.1.13: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 64 mG

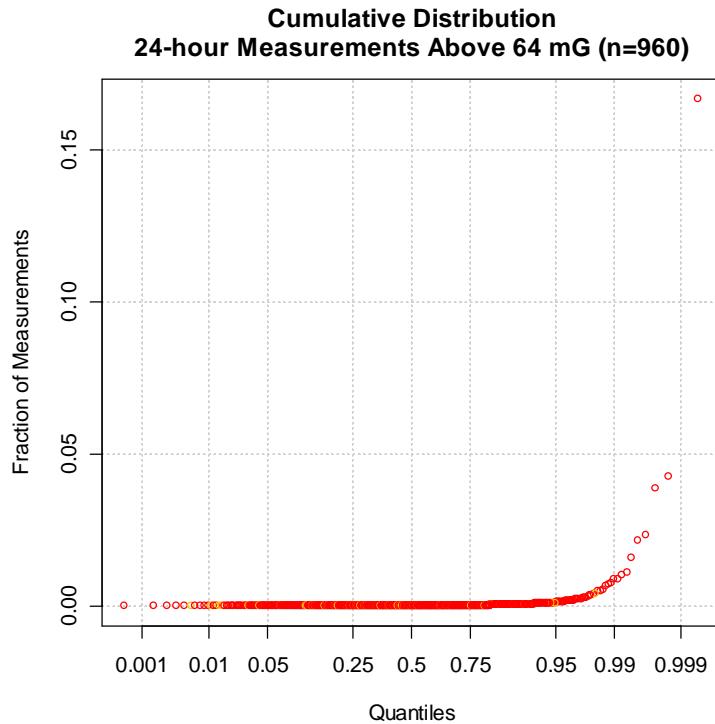


Figure 3.1.14: Cumulative distribution of 24-hour Fraction of Measurements Exceeding 2000 mG

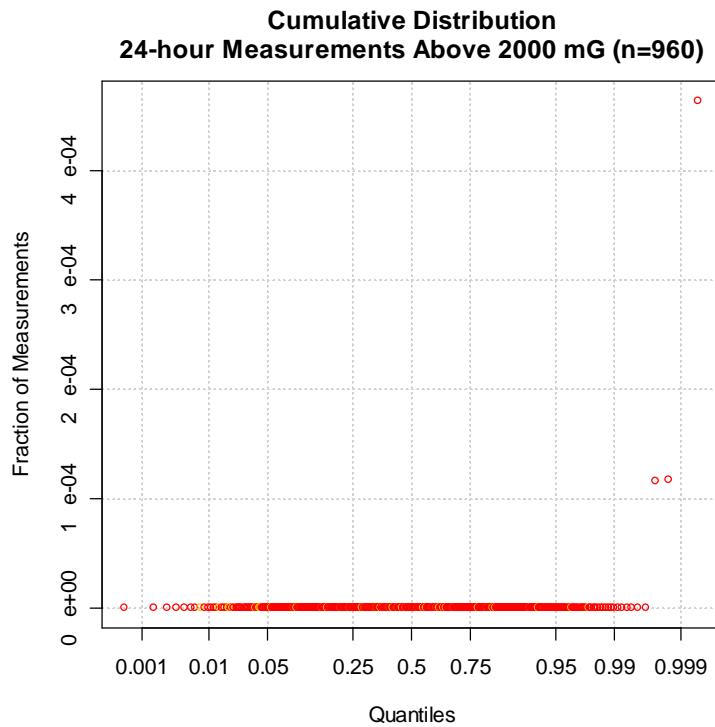


Figure 3.1.15: Cumulative distribution of 24-hour Longest Period Exceeding 2 mG

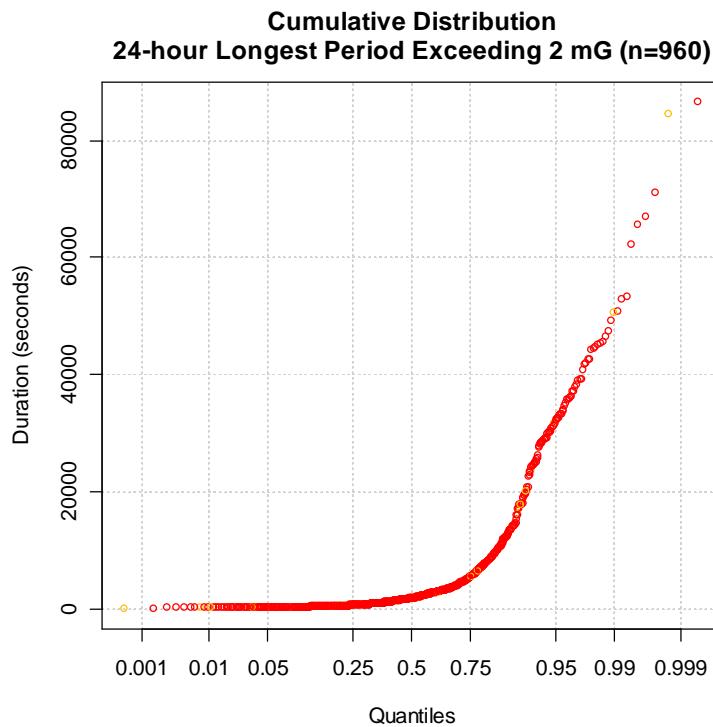


Figure 3.1.16: Cumulative distribution of 24-hour Longest Period Exceeding 4 mG

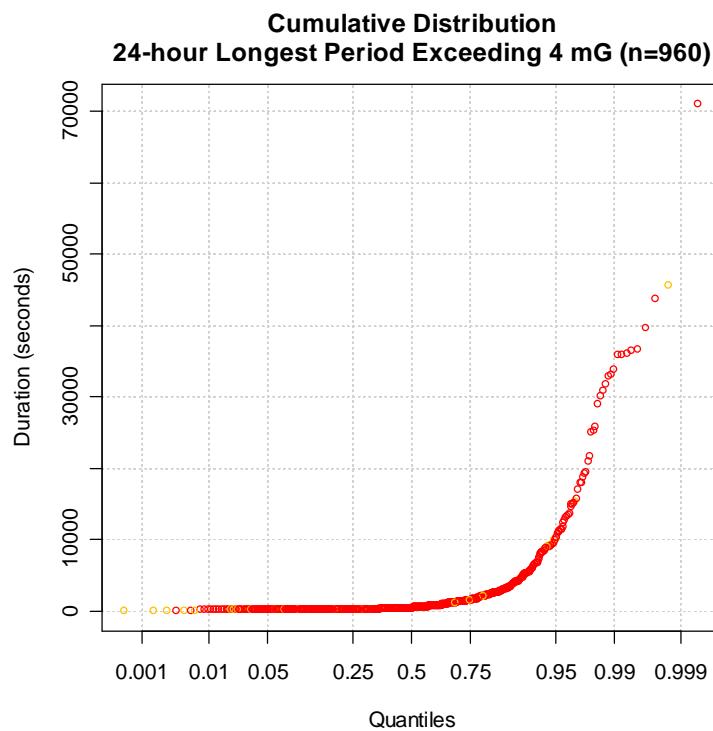


Figure 3.1.17: Cumulative distribution of 24-hour Longest Period Exceeding 16 mG

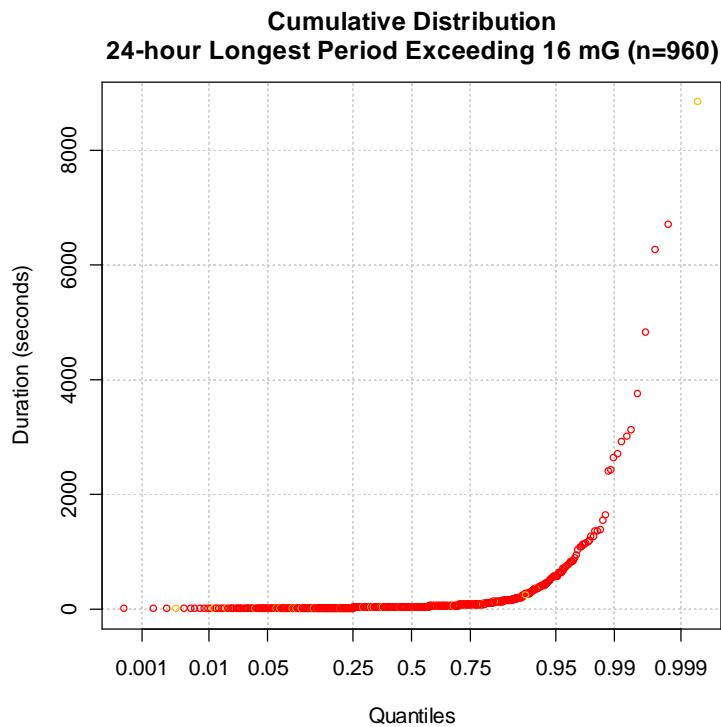


Figure 3.1.18: Cumulative distribution of 24-hour Longest Period Exceeding 64 mG

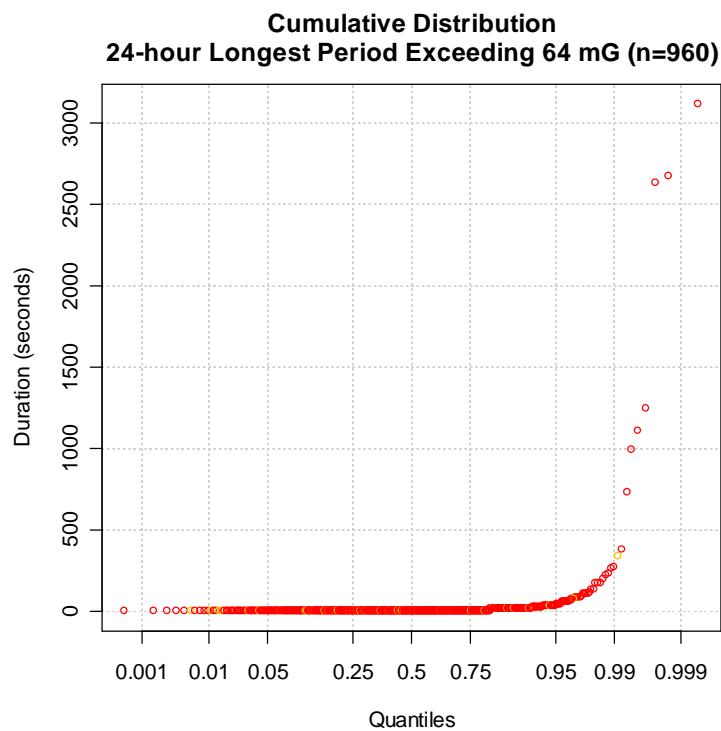


Figure 3.1.19: Cumulative distribution of 24-hour Longest Period Exceeding 2000 mG

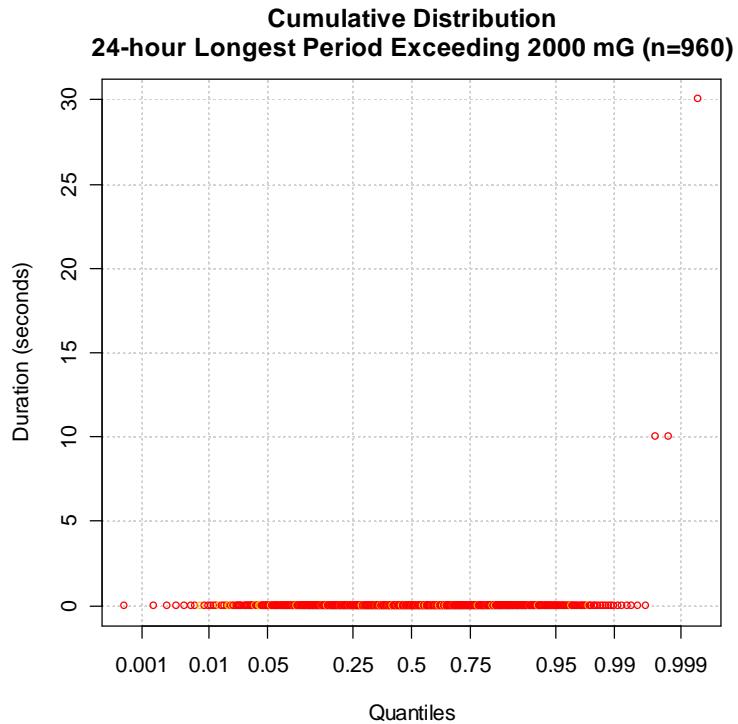


Figure 3.1.20: Cumulative distribution of 24-hour Sudden Field Changes Exceeding 2.5 mG

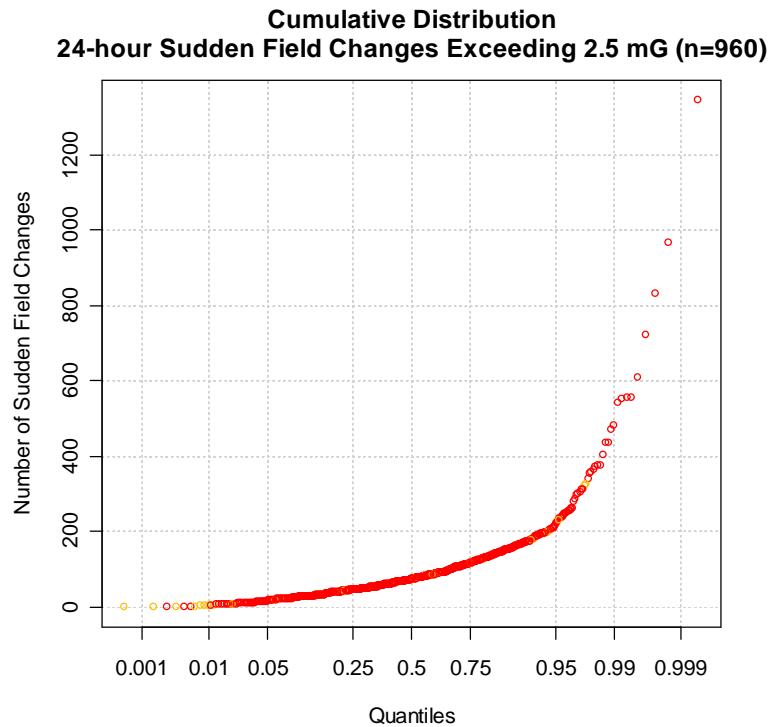


Figure 3.1.21: Cumulative distribution of 24-hour Sudden Field Changes Exceeding 5 mG

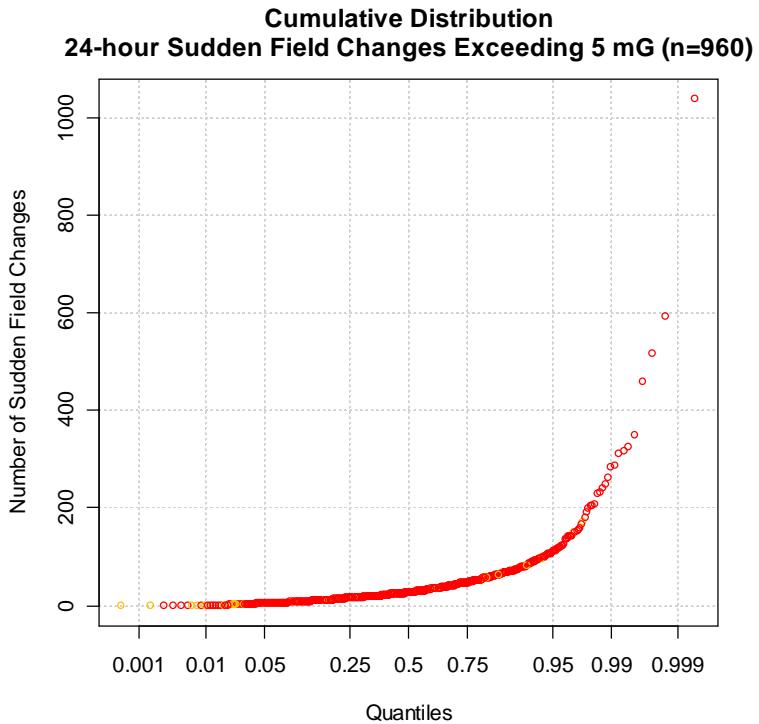


Figure 3.1.22: Cumulative distribution of 24-hour Sudden Field Changes Exceeding 10 mG

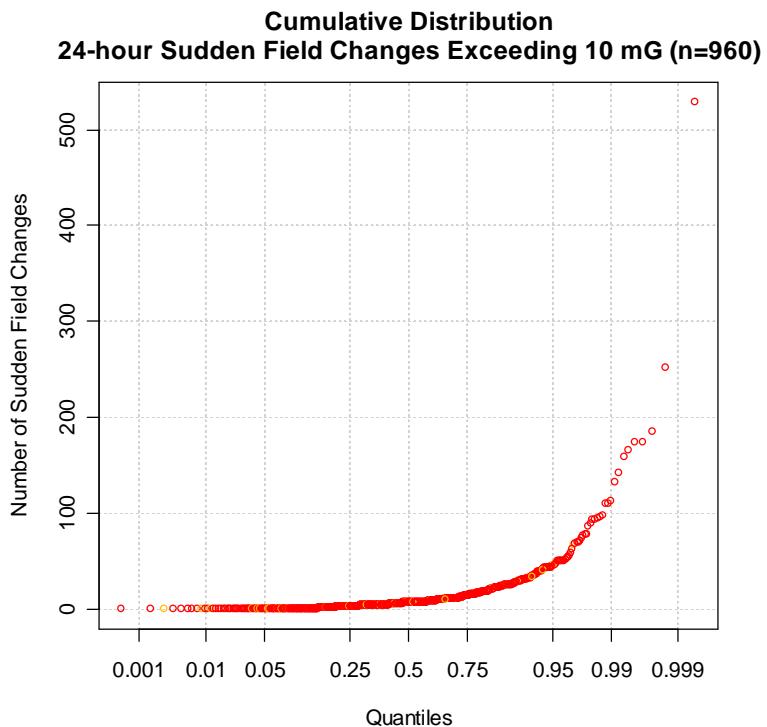


Figure 3.1.23: Cumulative distribution of 24-hour Minimum

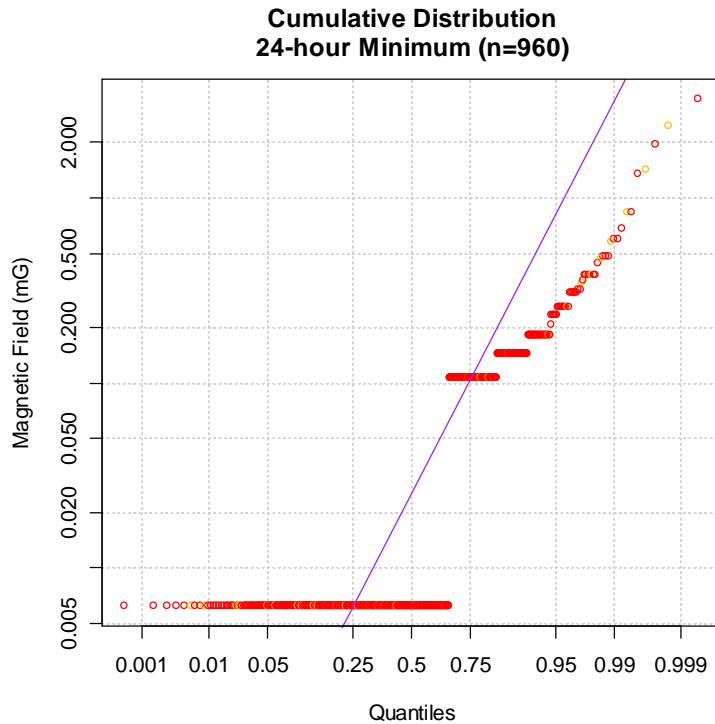


Figure 3.1.24: Cumulative distribution of 24-hour 5th Percentile

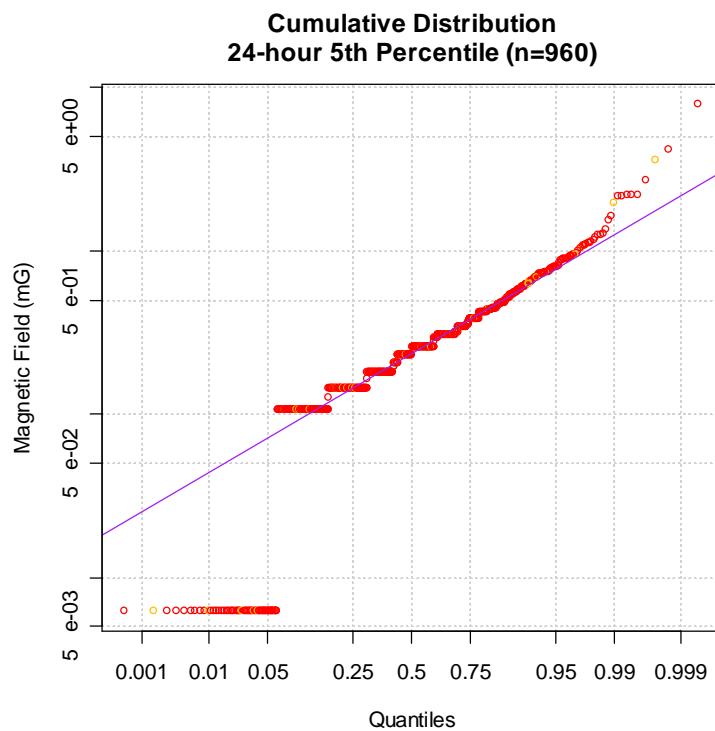


Figure 3.1.25: Cumulative distribution of 24-hour 25th Percentile

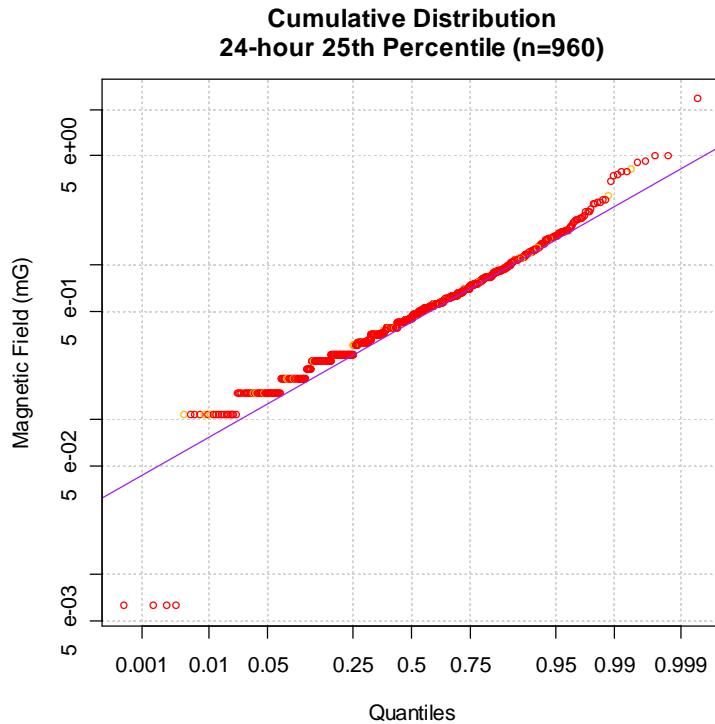


Figure 3.1.26: Cumulative distribution of 24-hour 50th Percentile

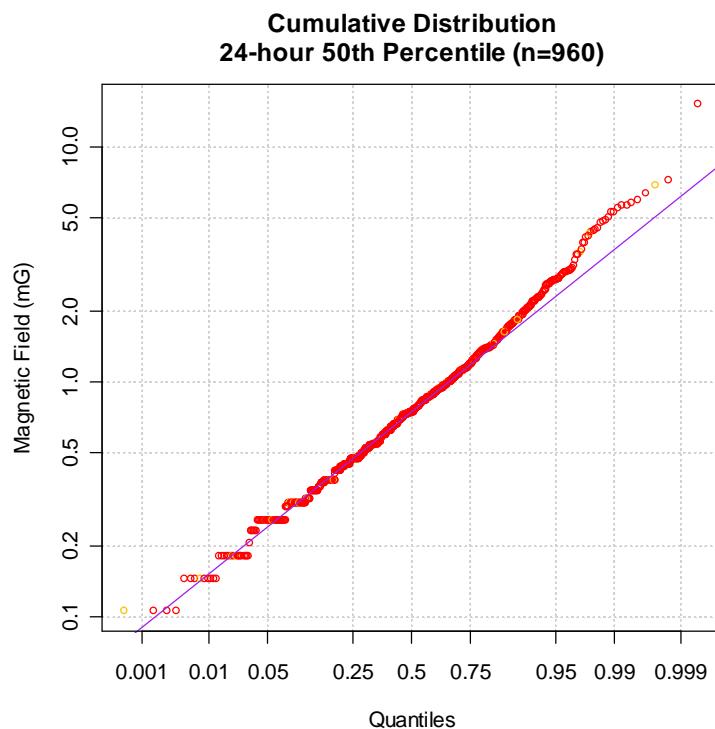


Figure 3.1.27: Cumulative distribution of 24-hour 75th Percentile

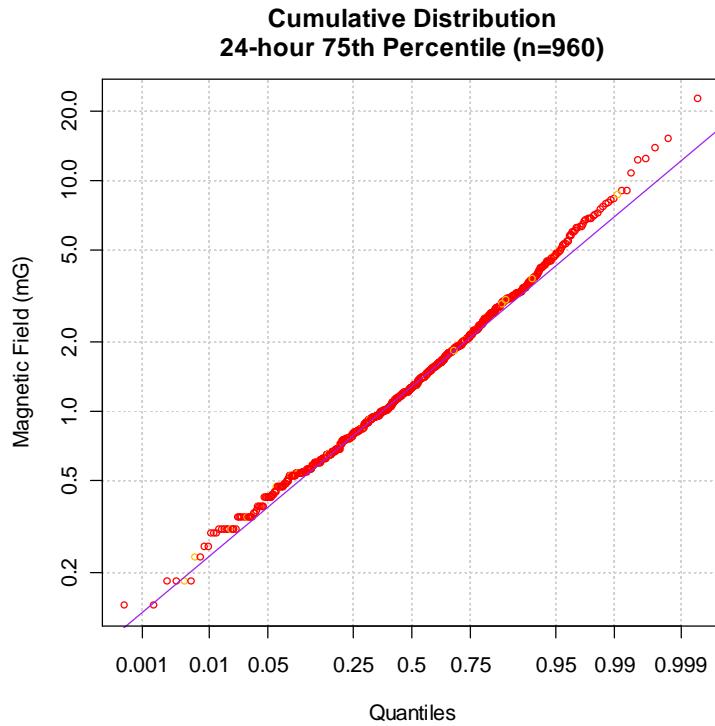


Figure 3.1.28: Cumulative distribution of 24-hour 90th Percentile

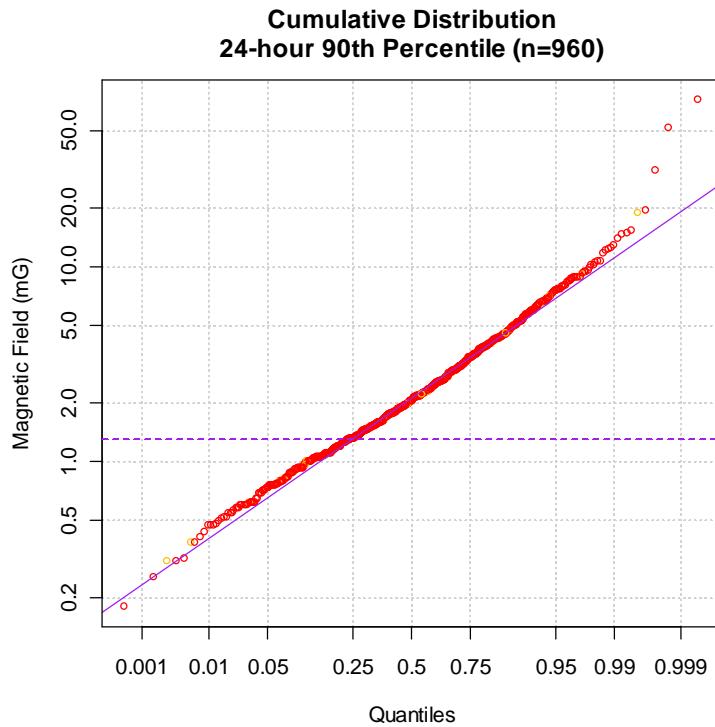


Figure 3.1.29: Cumulative distribution of 24-hour 95th Percentile

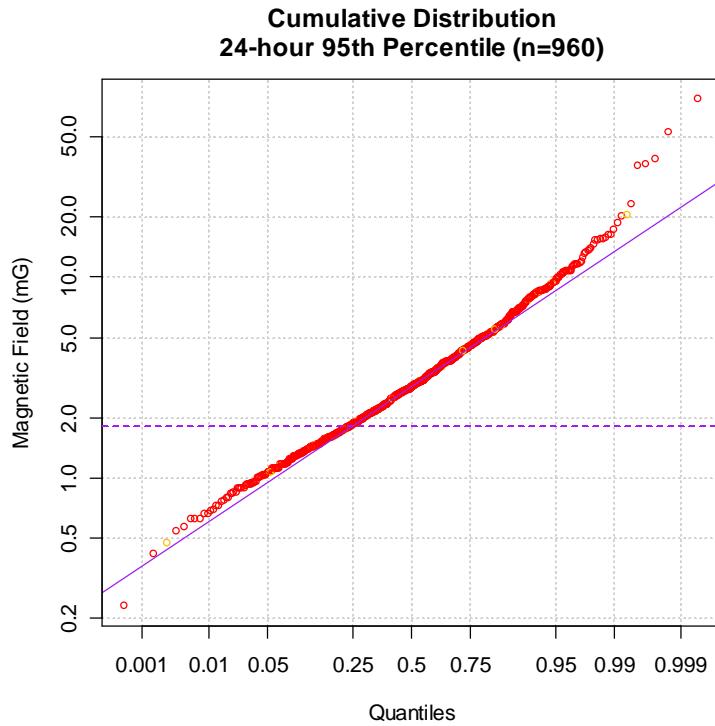


Figure 3.1.30: Cumulative distribution of 24-hour 99th Percentile

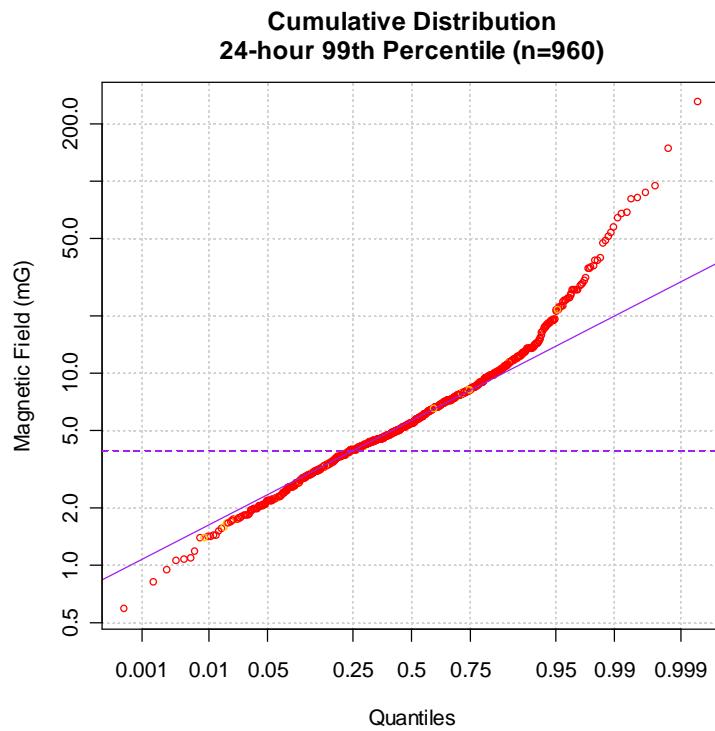


Figure 3.1.31: Cumulative distribution of 24-hour Maximum

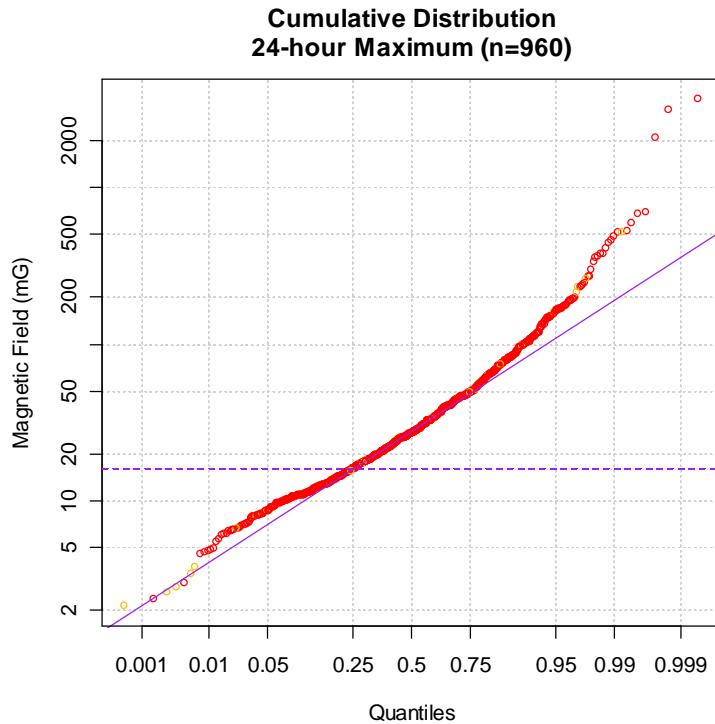


Figure 3.1.32: Cumulative distribution of 24-hour Episodes with Maximum Exceeding 16 mG

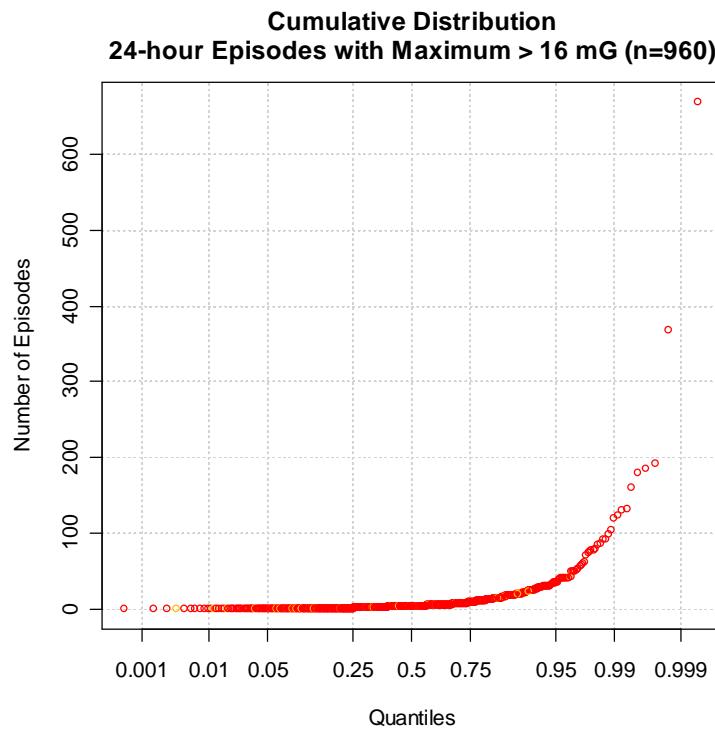
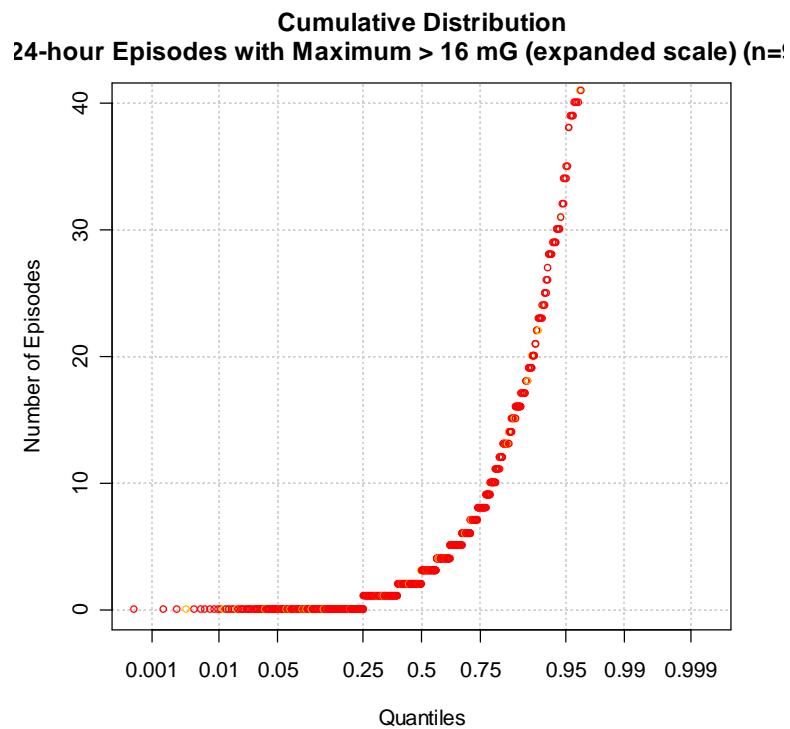


Figure 3.1.33: Cumulative distribution of 24-hour Episodes with Maximum Exceeding 16 mG (expanded scale)



3.2 Correlation between selected summary measures

Scatter plots in Figures 3.2.1 through 3.2.9 present the distribution of selected pairs of summary measures for the 960 subjects with 24-hour measurements. Vertical and horizontal dashed lines indicate the lower quartile (25th percentile) for the indicated summary measure. In two figures, a solid line indicates the linear least-squares regression line through the data. Visual inspection shows the highest correlation between the 90th and 95th percentile summary measures. Rank-order correlations for the “matrix” summary measures are presented in Section 3.3.

Figure 3.2.1: 24-hour Maximum versus Fraction of Measurements Exceeding 16 mG

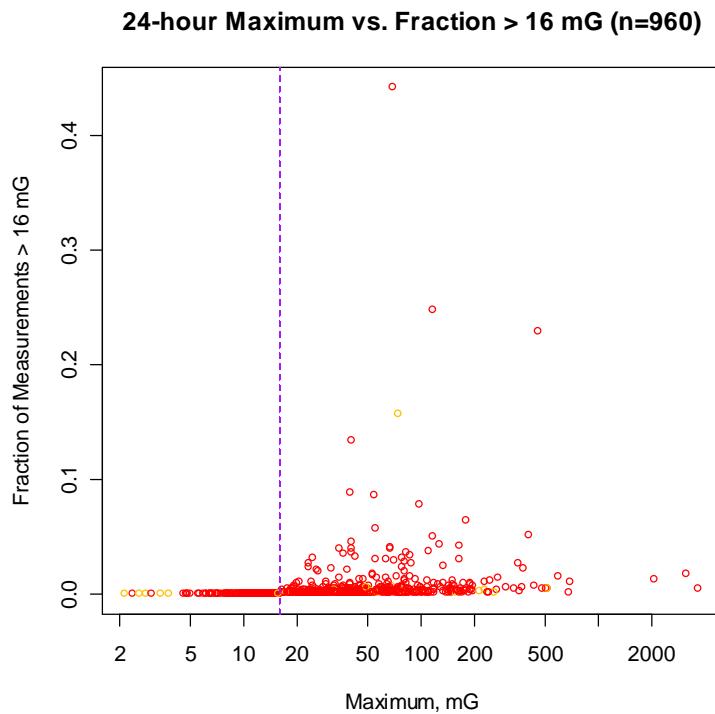


Figure 3.2.2: 24-hour Maximum versus 99th Percentile

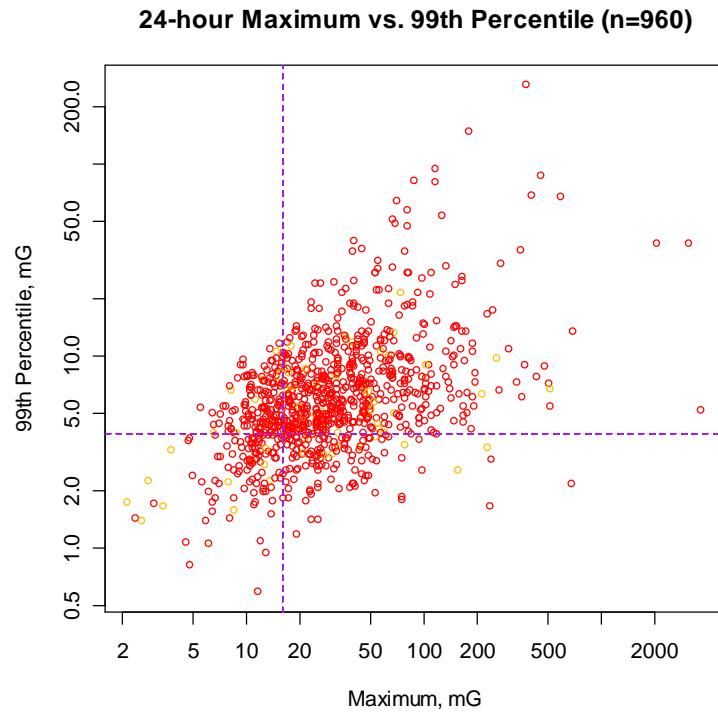


Figure 3.2.3: 24-hour Maximum versus 95th Percentile

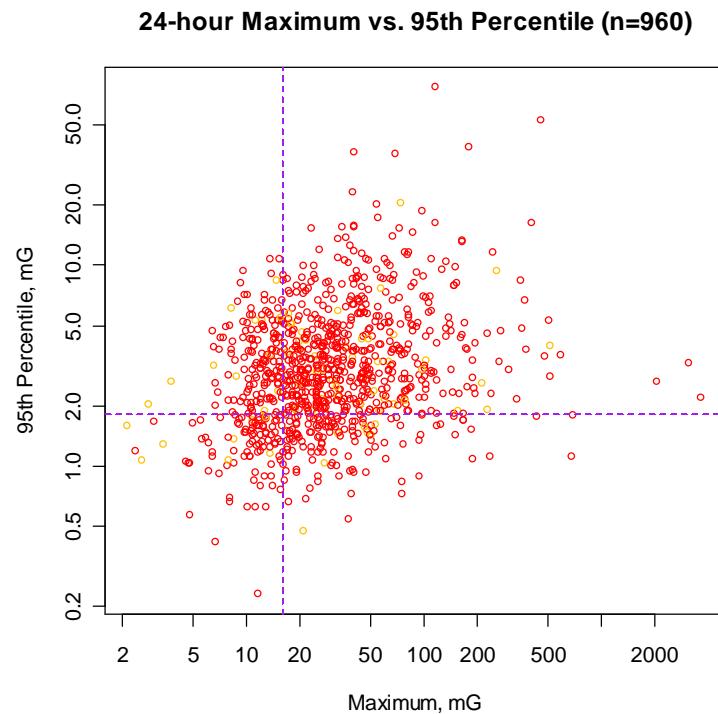


Figure 3.2.4: 24-hour Maximum versus 90th Percentile

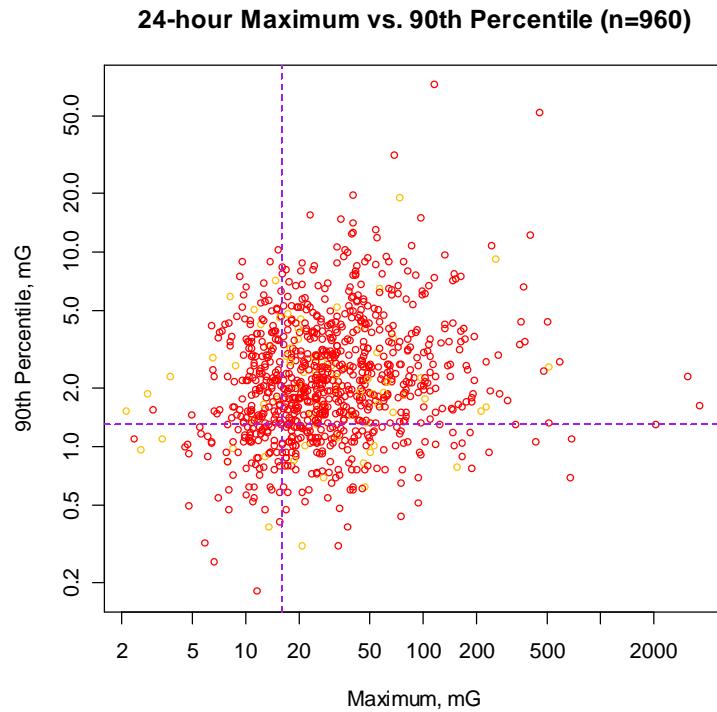


Figure 3.2.5: 24-hour 99th Percentile versus 90th Percentile

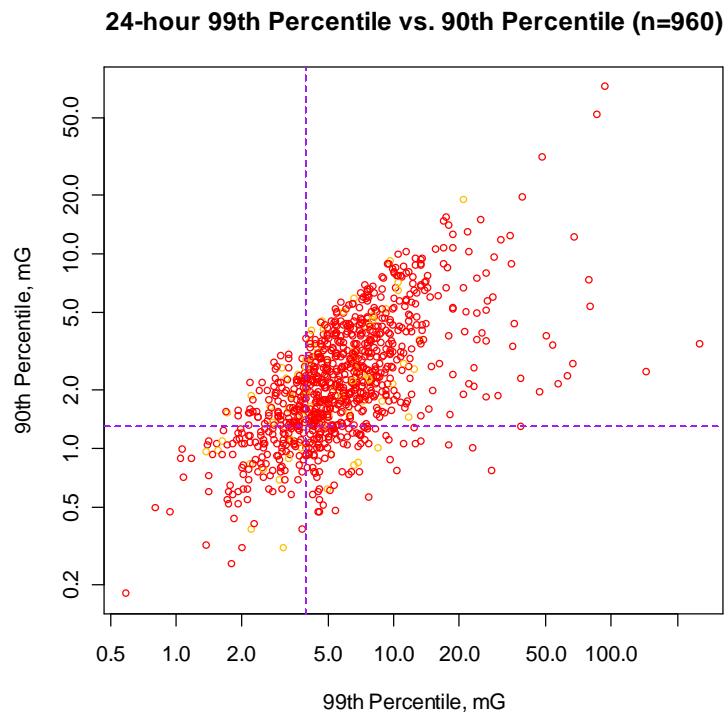


Figure 3.2.6: 24-hour 95th Percentile versus 90th Percentile

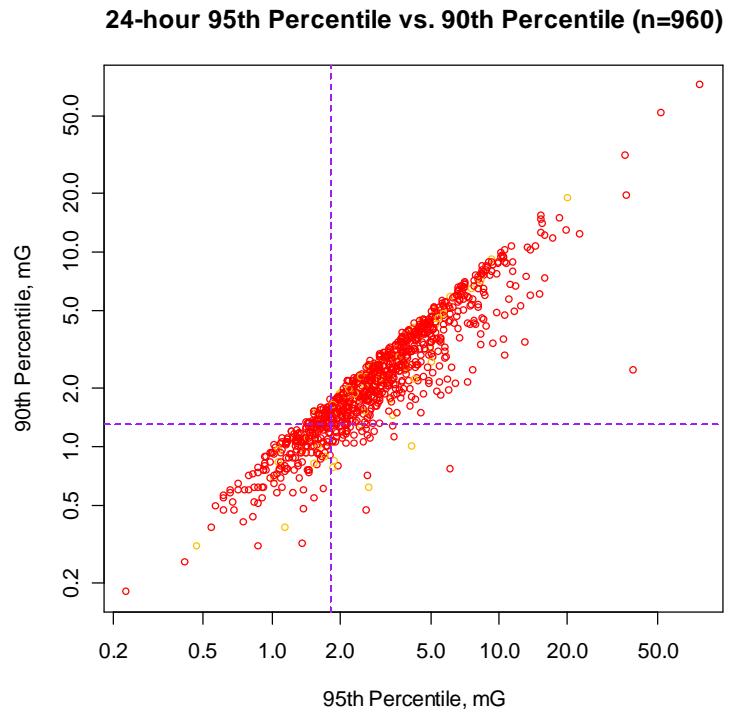


Figure 3.2.7: 24-hour 99th Percentile versus 95th Percentile

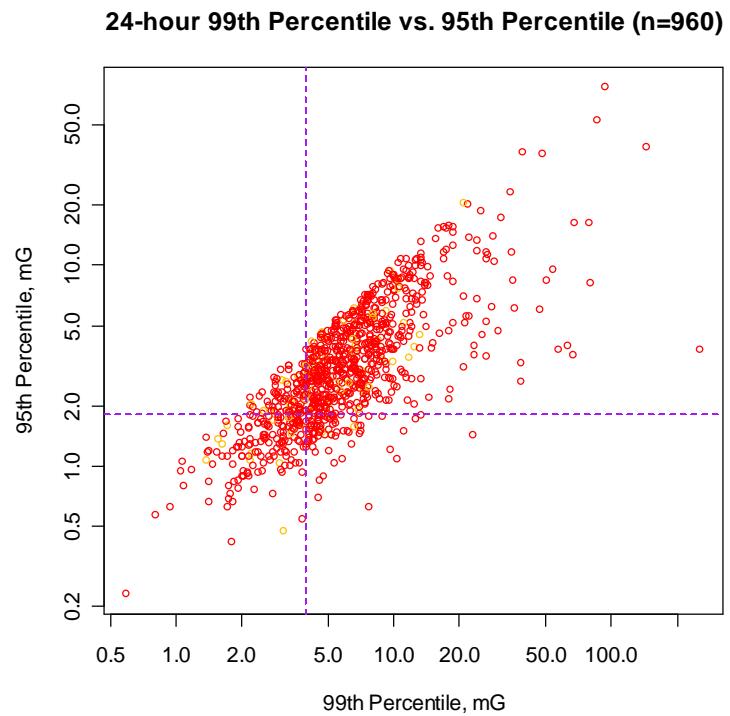


Figure 3.2.8: 24-hour Maximum versus fraction of day at home

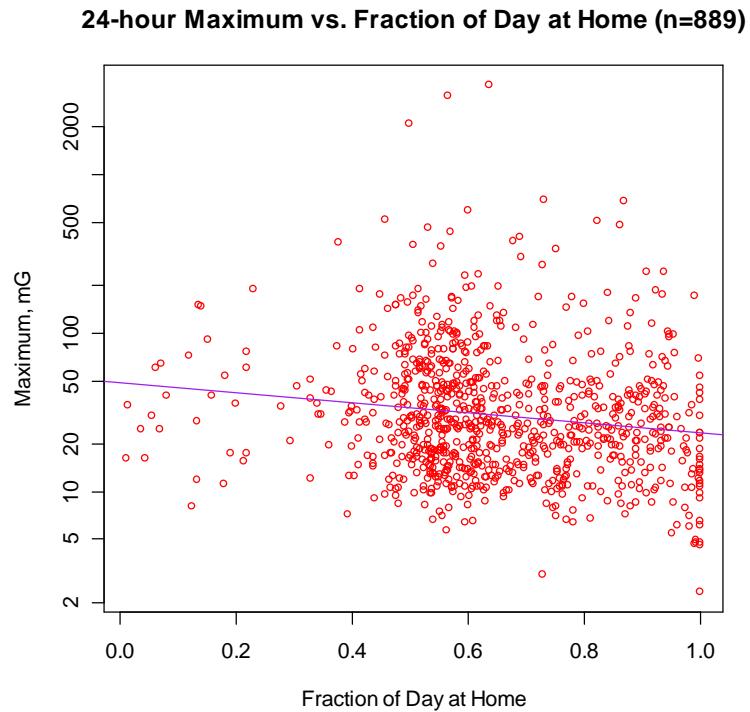


Figure 3.2.9: 24-hour Maximum versus fraction of day at work
Rank-order correlation between 'matrix' summary measures
Multi-linear regression for 'matrix' summary measures

3.3 Rank-order Correlation Coefficients

The rank-order correlations between the 14 “matrix” summary measures are shown in Table 3.3. Care must be taken in interpreting the high correlation coefficients associated with summary measures such as the Fraction of Measurements >16 mG because a significant number of subjects have a zero value for this measure. (See Figure 3.2.1 for which $R^2 = 0.82$.)

Table 3.3: Rank-order correlation between ‘matrix’ summary measures

	TWA, mG	Harmonic TWA, mG	RCM, mG	RCM*	Sudden field changes > 2.5 mG	Sudden field changes > 5 mG	Longest period > 4 mG, seconds	Longest period > 16 mG, seconds	Fraction of measurements > 4 mG	Fraction of measurements > 16 mG	90th percentile, mG	95th percentile, mG	99th percentile, mG	Maximum magnetic field, mG
TWA, mG	1													
Harmonic TWA, mG	0.78	1												
RCM, mG	0.35	0.34	1											
RCM*	-0.41	-0.29	0.38	1										
Sudden field changes > 2.5 mG	0.36	0.33	0.75	0.24	1									
Sudden field changes > 5 mG	0.33	0.32	0.83	0.30	0.91	1								
Longest period > 4 mG, seconds	0.67	0.52	0.29	-0.52	0.32	0.30	1							
Longest period > 16 mG, seconds	0.33	0.30	0.70	0.00	0.45	0.55	0.31	1						
Fraction of measurements > 4 mG	0.77	0.60	0.43	-0.42	0.52	0.48	0.90	0.36	1					
Fraction of measurements > 16 mG	0.36	0.33	0.79	0.08	0.54	0.66	0.33	0.96	0.40	1				
90th percentile, mG	0.91	0.72	0.28	-0.46	0.35	0.29	0.68	0.24	0.80	0.27	1			
95th percentile, mG	0.86	0.68	0.36	-0.47	0.43	0.37	0.77	0.31	0.89	0.35	0.93	1		
99th percentile, mG	0.68	0.55	0.58	-0.32	0.63	0.63	0.79	0.51	0.88	0.58	0.64	0.77	1	
Maximum magnetic field, mG	0.26	0.26	0.91	0.36	0.52	0.63	0.22	0.77	0.30	0.82	0.18	0.25	0.44	1

3.4 Multi-linear Regression across Environments

In this analysis, for each of the “matrix” summary measures, the 24-hour value is treated as the dependent variable and the corresponding values from each environment are used as the independent variables. For example, the model for the TWA summary measure is:

$$\{24\text{-hour TWA}\} = A_{\text{home}} * \{\text{Home TWA}\} + A_{\text{inbed}} * \{\text{In-bed TWA}\} + A_{\text{work}} * \{\text{Work TWA}\} + A_{\text{travel}} * \{\text{Travel TWA}\} + A_{\text{other}} * \{\text{Other TWA}\}$$

where A_x represents the coefficient of the x -th variable in the linear regression model. The values of A_{home} through A_{other} computed from 889 subjects for each “matrix” summary measure are presented in Table 3.4. For comparison, the average fraction of measurements, indicating the average fraction of time subjects spent in each environment is found at the top of the table. Subjects with no exposure in an environment were assigned a zero value when constructing the model.

Table 3.4: Multi-linear regression for 'matrix' summary measures

Parameter	A_{home}	A_{inbed}	A_{work}	A_{travel}	A_{other}
Average fraction of measurements	0.261	0.392	0.182	0.064	0.065
TWA	0.244	0.551	0.415	0.142	0.086
Harmonic TWA	0.284	0.457	0.461	0.317	0.039
RCM	0.552	0.046	0.565	0.184	0.159
RCM*	0.469	0.144	0.067	0.165	0.101
Number of Sudden field changes > 2.5 mG	1.018	1.005	1.000	1.018	1.008
Number of Sudden field changes > 5 mG	1.012	1.003	1.000	1.010	1.011
Longest period > 4 mG	0.120	0.815	0.965	0.069	0.772
Longest period > 16 mG	0.042	0.982	0.938	0.880	1.037
Fraction of measurements > 4 mG	0.245	0.428	0.278	0.067	0.101
Fraction of measurements > 16 mG	0.156	0.479	0.290	0.039	0.080
90th percentile	0.204	0.771	0.276	0.008	0.100
95th percentile	0.324	0.607	0.154	0.003	0.137
99th percentile	0.435	0.527	0.627	0.054	0.017
Maximum magnetic field	0.963	-0.203	0.956	0.737	0.889

3.5 Comparison of Cumulative Distributions with 1000-Person Study

Comparison between the Kaiser SAB data set and the RAPID 1000-Person Study data set for selected summary measures are shown in Figures 3.5.1 through 3.5.3. The 1000-Person Study data were not adjusted by the weights used by the original researchers, but are instead weighted uniformly across persons. The 1000-Person Study used a different magnetic field meter, the EMDEX PAL [Enertech Consultants, Campbell, CA]. This meter samples more rapidly than the EMDEX II (0.5 seconds versus 10 seconds) and summarizes the collected data over 10 minute intervals rather than recording a simple time-series. Kruskal-Wallis tests comparing distributions from the two studies, the results of which appear in Table 3.5, indicate that it is highly unlikely the distributions are equivalent. However, visual inspection of the figures indicates comparability between exposure in the two studies. The TWA exposure tends to be lower in the 1000-Person Study, but the maximums tend to be higher, which might be expected given the higher sampling rate.

Table 3.5: Kruskal-Wallis test results comparing distributions of selected parameters between Kaiser SAB and the RAPID 1000-Person study

Parameter	Test statistic	Degrees of freedom	P-value
TWA	73.00407	1	1.29E-17
Maximum	211.4277	1	6.70E-48
Fraction of measurements > 16 mG	164.0556	1	1.47E-37

Figure 3.5.1: Comparison of Kaiser SAB and 1000-Person cumulative distributions of 24-hour TWA

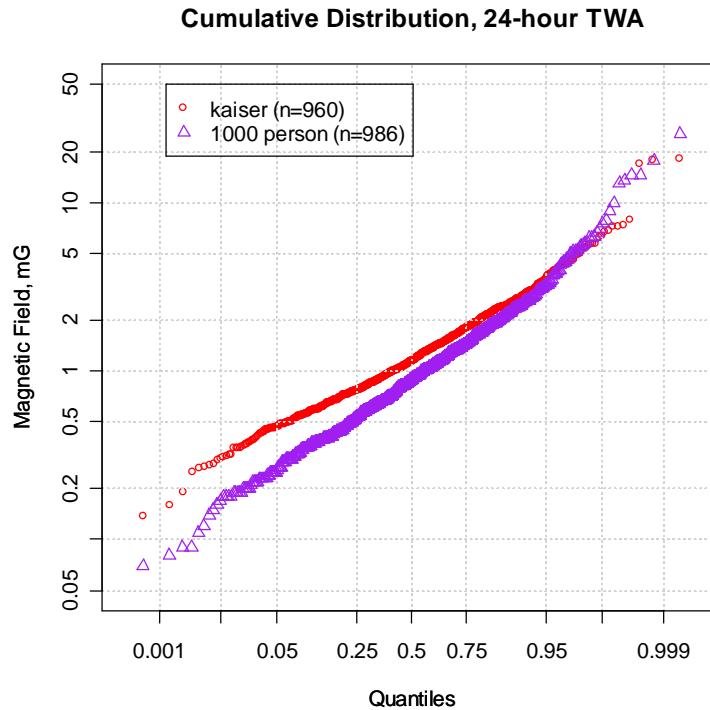


Figure 3.5.2: Comparison of Kaiser SAB and 1000-Person cumulative distributions of 24-hour Fraction of Measurements Exceeding 16 mG

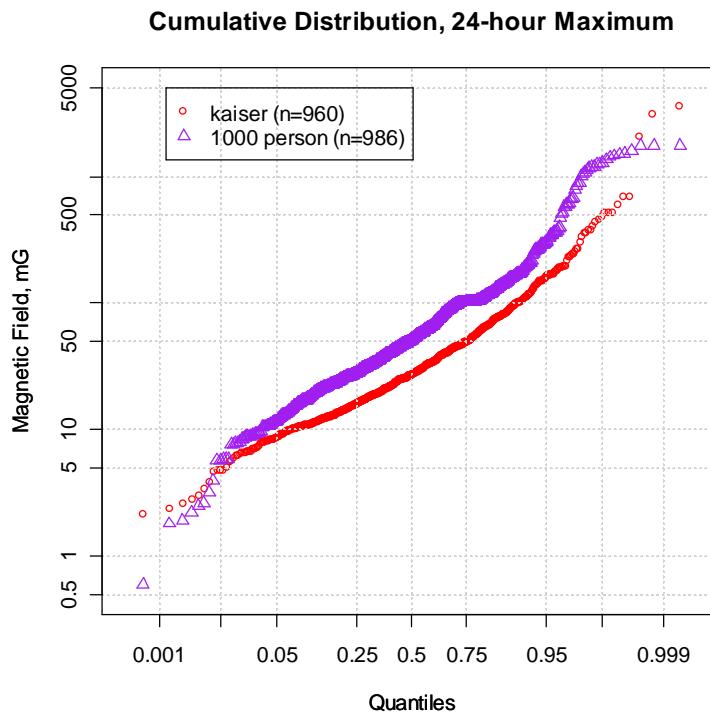
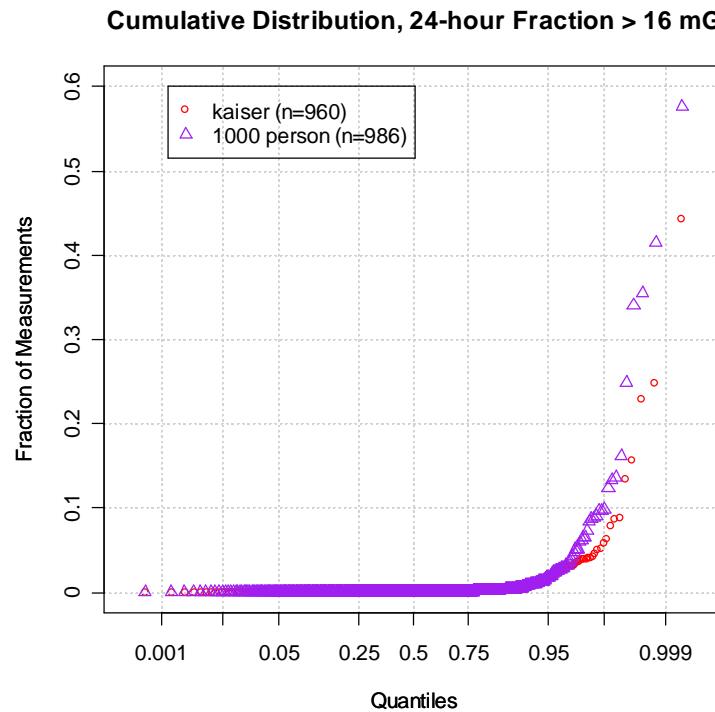


Figure 3.5.3: Comparison of Kaiser SAB and 1000-Person cumulative distributions of 24-hour Fraction of Measurements Exceeding 16 mG



3.6 Comparison of “typical” and “atypical” days

In this analysis, subjects were classified by whether they indicated their magnetic field measurement days were typical or not. Plots showing both typical and atypical cumulative distributions are presented in Figures 3.6.1 through 3.6.14 for the “matrix” summary measures. If the subject indicated that any of six characteristics of their measurement day were atypical, then the subject was classified as “atypical”. A response of “can’t say” was considered to be “typical” for these purposes. These characterizations relied on the subjects own assessment. The six characteristics were:

- the use of the subjects usual bed;
- the amount of time or the time of day the subject spent in bed;
- the amount of time or the time of day the subject spent at home but not in bed;
- the subject’s work day was similar to the subject’s usual work day;
- the subject’s travel pattern was similar to the subject’s usual travel pattern; and
- the subject’s other activities were similar to what the subject does on most days.
-

Table 3.6 presents the results of Kruskal-Wallis tests comparing distributions of the 14 “matrix” summary measures. None of the distributions were found to be significantly different ($p < 0.05$) for the two types of day.

Table 3.6: Kruskal-Wallis test results comparing distributions of ‘matrix’ parameters between ‘typical’ and ‘atypical’ days

Parameter	Test statistic	Degrees of freedom	P-value
TWA	3.671	1	0.0554
Harmonic TWA	2.818	1	0.0932
RCM	2.773	1	0.0959
RCM*	0.899	1	0.3431
Sudden field changes > 2.5 mG	1.874	1	0.1711
Sudden field changes > 5 mG	3.264	1	0.0708
Longest period > 4 mG	1.158	1	0.2819
Longest period > 16 mG	0.272	1	0.6018
Fraction of measurements > 4 mG	1.302	1	0.2538
Fraction of measurements > 16 mG	0.238	1	0.6253
90th percentile	3.076	1	0.0794
95th percentile	2.113	1	0.1460
99th percentile	0.752	1	0.3858
Maximum magnetic field	1.750	1	0.1858

Figure 3.6.1: Comparison of cumulative distributions of 24-hour TWA for 'typical' and 'atypical' days

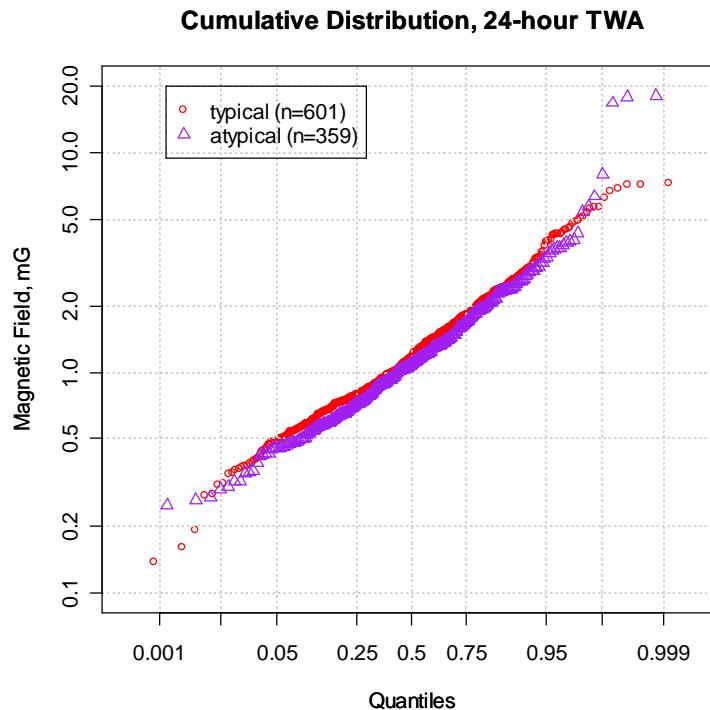


Figure 3.6.2: Comparison of cumulative distributions of 24-hour Harmonic TWA for 'typical' and 'atypical' days

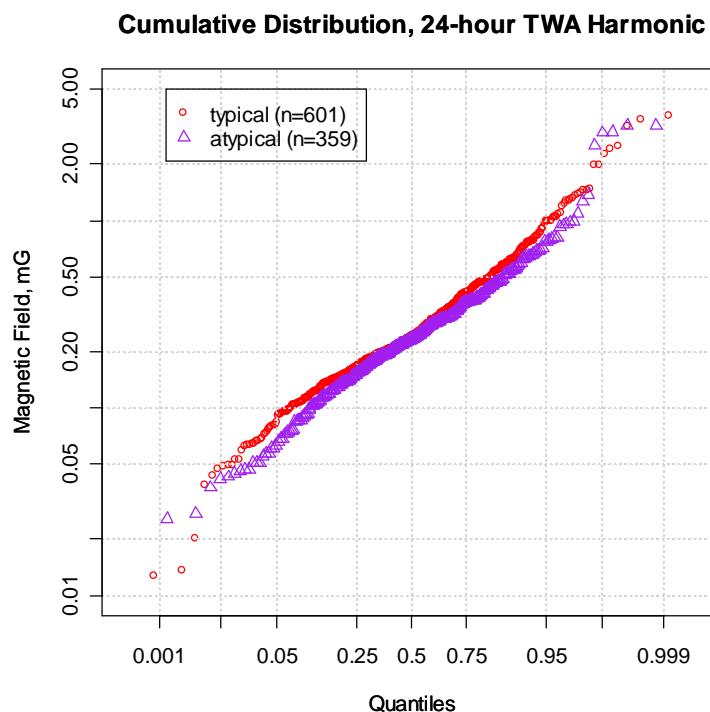


Figure 3.6.3: Comparison of cumulative distributions of 24-hour Rate-of-Change Metric (RCM) for 'typical' and 'atypical' days

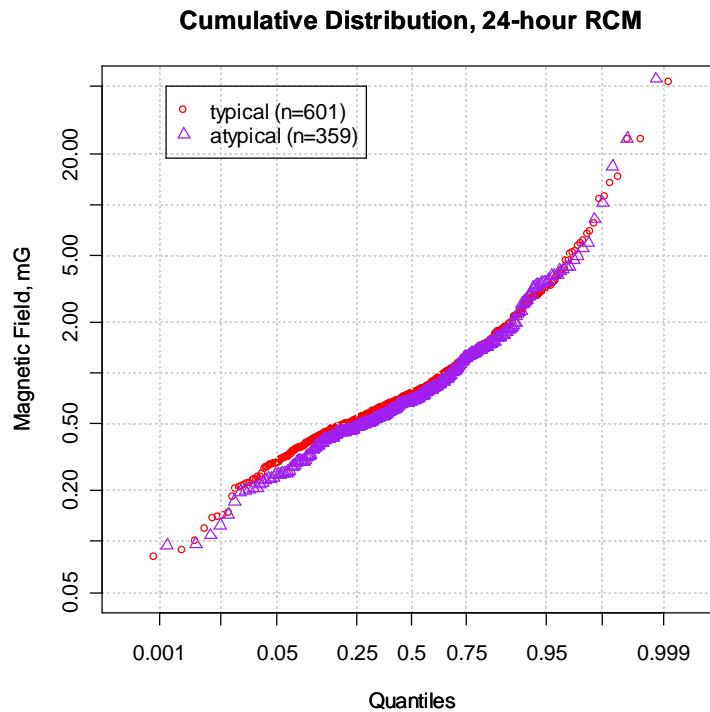


Figure 3.6.4: Comparison of cumulative distributions of 24-hour Dimensionless Rate-of-Change Metric (RCM*) for 'typical' and 'atypical' days

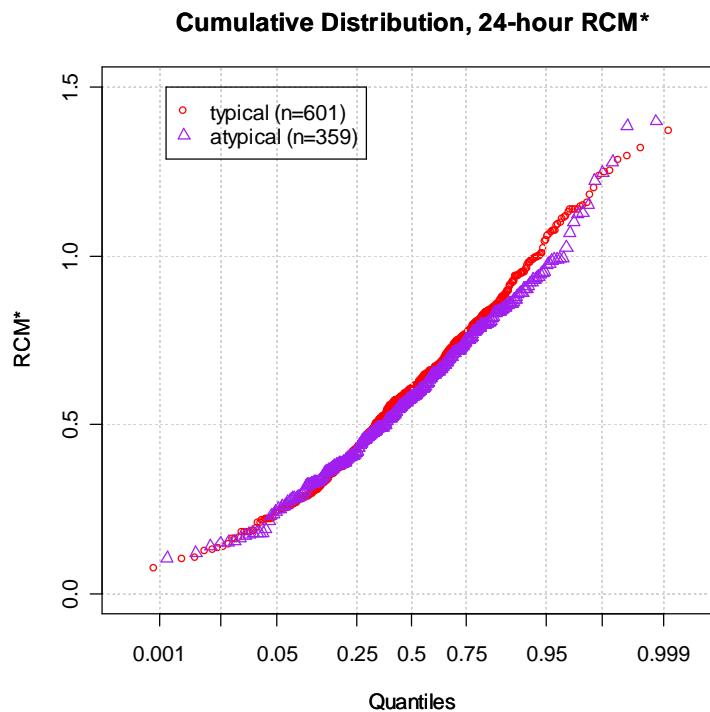


Figure 3.6.5: Comparison of cumulative distributions of 24-hour Sudden Field Changes Exceeding 2.5 mG for 'typical' and 'atypical' days

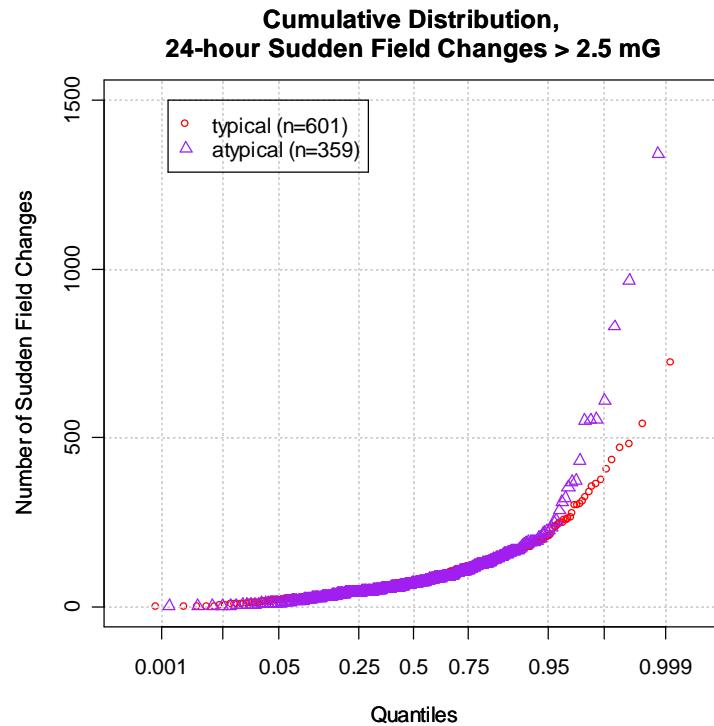


Figure 3.6.6: Comparison of cumulative distributions of 24-hour Sudden Field Changes Exceeding 5 mG for 'typical' and 'atypical' days

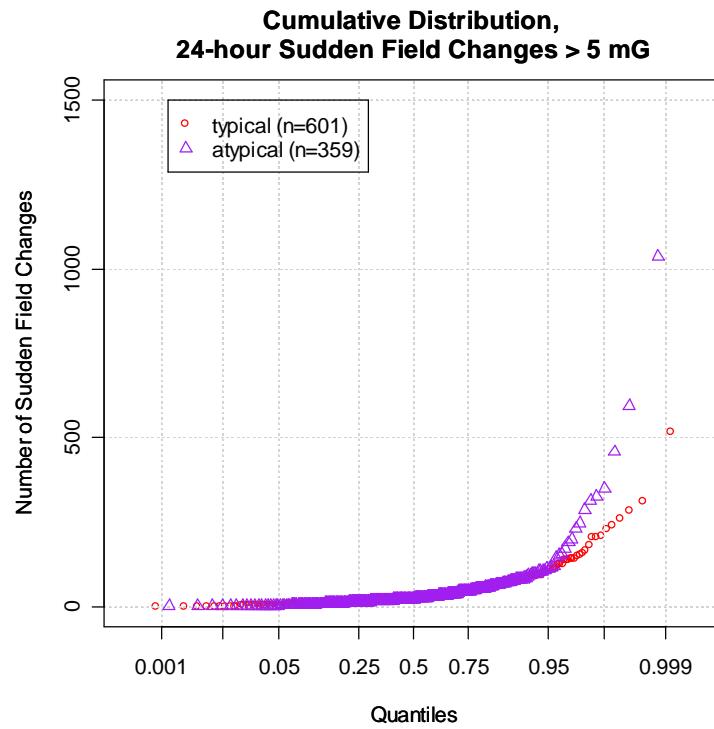


Figure 3.6.7: Comparison of cumulative distributions of 24-hour Longest Period Exceeding 4 mG for 'typical' and 'atypical' days

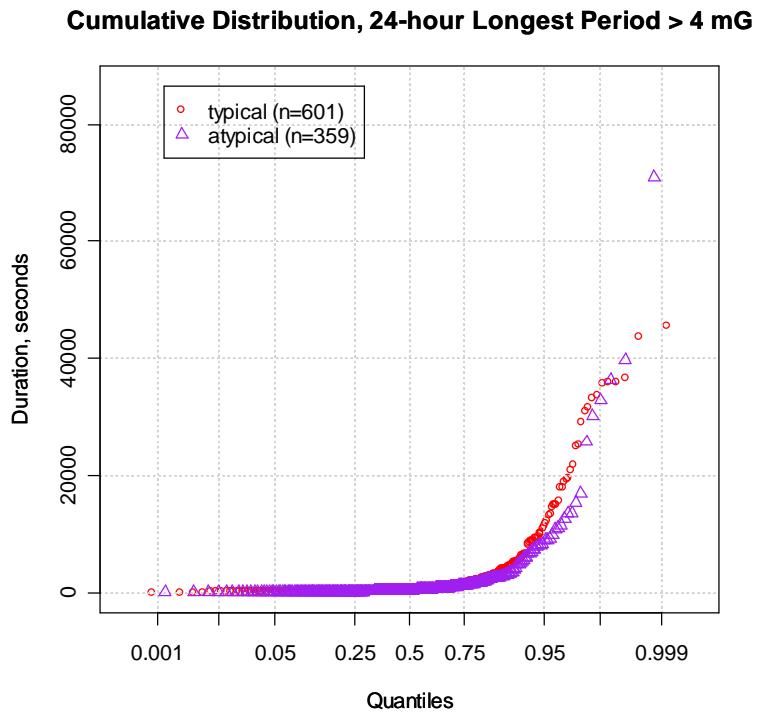


Figure 3.6.8: Comparison of cumulative distributions of 24-hour Longest Period Exceeding 16 mG for 'typical' and 'atypical' days

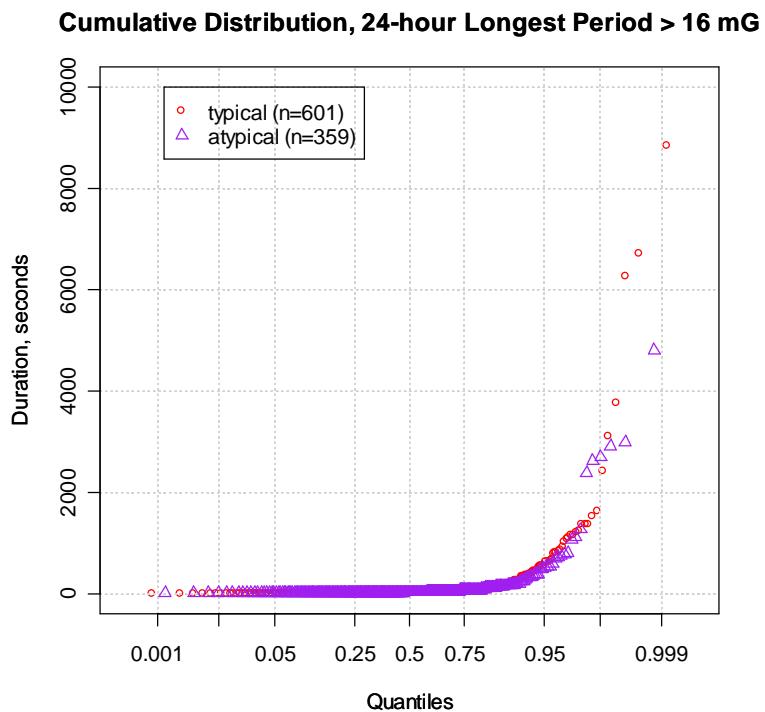


Figure 3.6.9: Comparison of cumulative distributions of 24-hour Fraction of Measurements Exceeding 4 mG for 'typical' and 'atypical' days

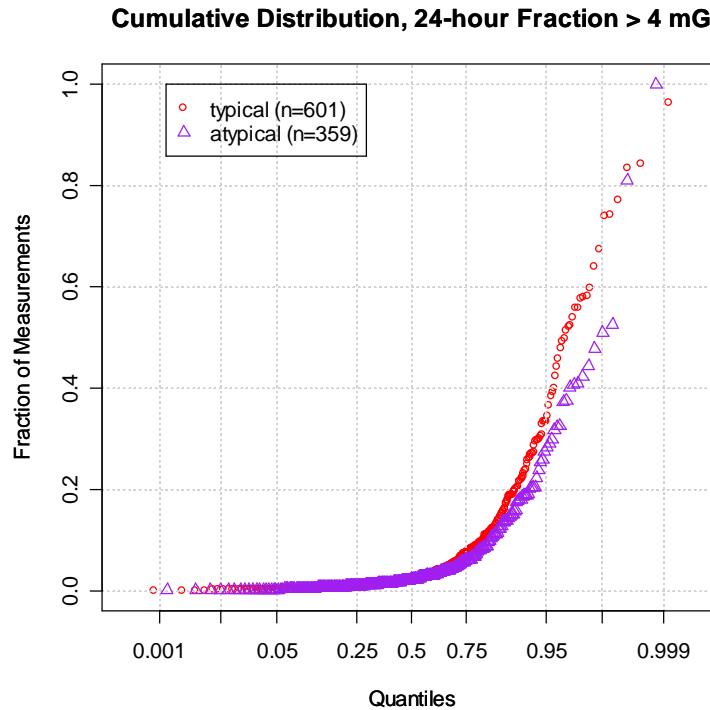


Figure 3.6.10: Comparison of cumulative distributions of 24-hour Fraction of Measurements Exceeding 16 mG for 'typical' and 'atypical' days

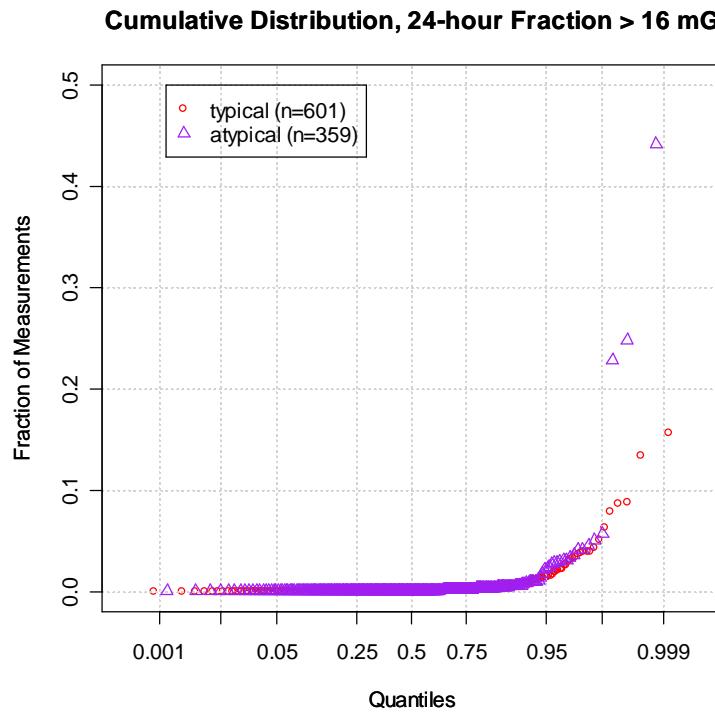


Figure 3.6.11: Comparison of cumulative distributions of 24-hour 90th Percentile for 'typical' and 'atypical' days

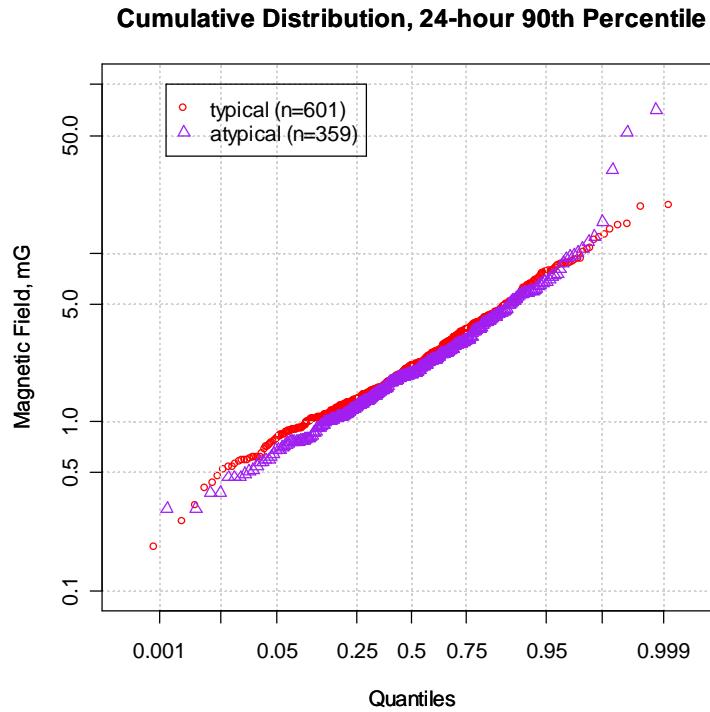


Figure 3.6.12: Comparison of cumulative distributions of 24-hour 95th Percentile for 'typical' and 'atypical' days

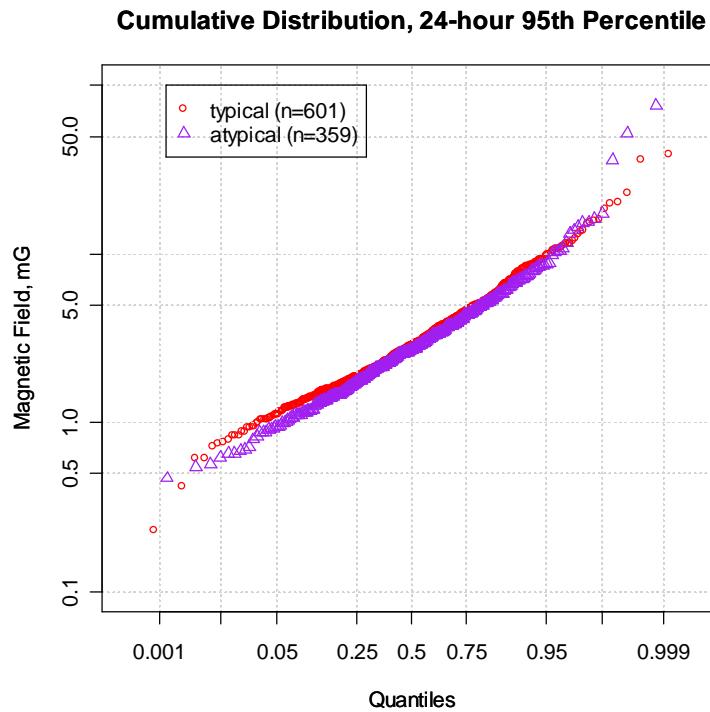


Figure 3.6.13: Comparison of cumulative distributions of 24-hour 99th Percentile for 'typical' and 'atypical' days

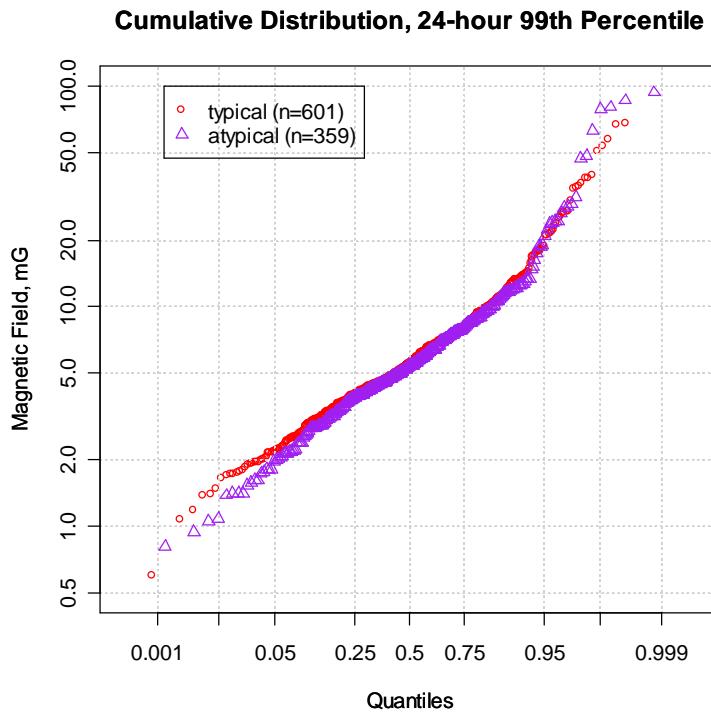
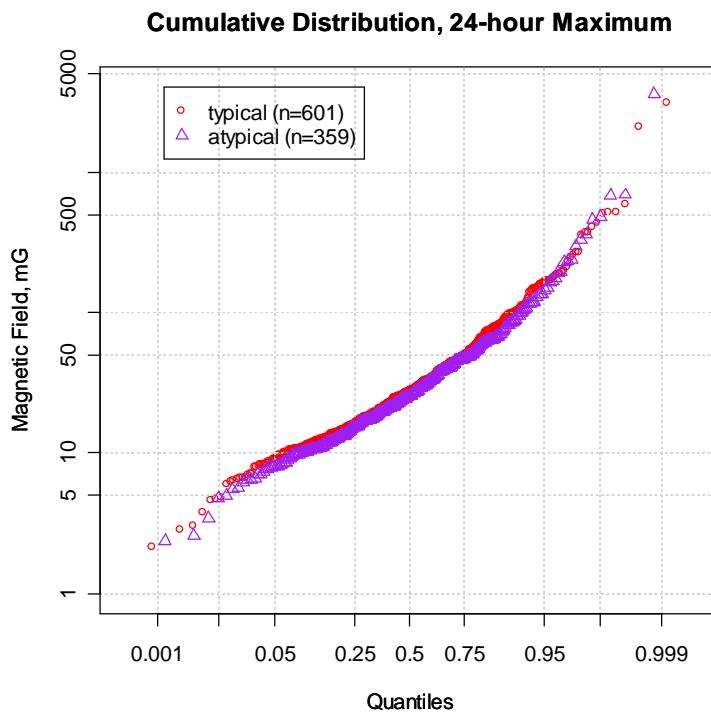


Figure 3.6.14: Comparison of cumulative distributions of 24-hour Maximum for 'typical' and 'atypical' days



3.7 Comparison of “working” and “non-working” subjects

In this analysis, subjects were classified by whether or not they had any measurement time in a work environment. Plots showing both working and non-working cumulative distributions are presented in Figures 3.7.1 through 3.7.14 for the “matrix” summary measures. The results of Kruskal-Wallis tests comparing the distributions of “working” and “non-working” subjects are presented in Table 3.7. All of these “matrix” summary measures, except RCM*, showed statistically significant differences between the distributions for “working” and “non-working” subjects.

Table 3.7: Kruskal-Wallis test results comparing distributions of 'matrix' parameters between 'working' and 'non-working' subjects

Parameter	Test statistic	Degrees of freedom	P-value
TWA	13.958	1	1.87E-04
Harmonic TWA	43.494	1	4.25E-11
RCM	22.345	1	2.28E-06
RCM*	0.003	1	9.55E-01
Sudden field changes > 2.5 mG	36.256	1	1.73E-09
Sudden field changes > 5 mG	36.584	1	1.46E-09
Longest period > 4 mG	6.713	1	9.57E-03
Longest period > 16 mG	7.326	1	6.80E-03
Fraction of measurements > 4 mG	14.472	1	1.42E-04
Fraction of measurements > 16 mG	13.271	1	2.70E-04
90th percentile	21.763	1	3.08E-06
95th percentile	19.176	1	1.19E-05
99th percentile	16.567	1	4.70E-05
Maximum magnetic field	9.978	1	1.58E-03

Figure 3.7.1: Comparison of cumulative distributions of 24-hour TWA for 'working' and 'non-working' subjects

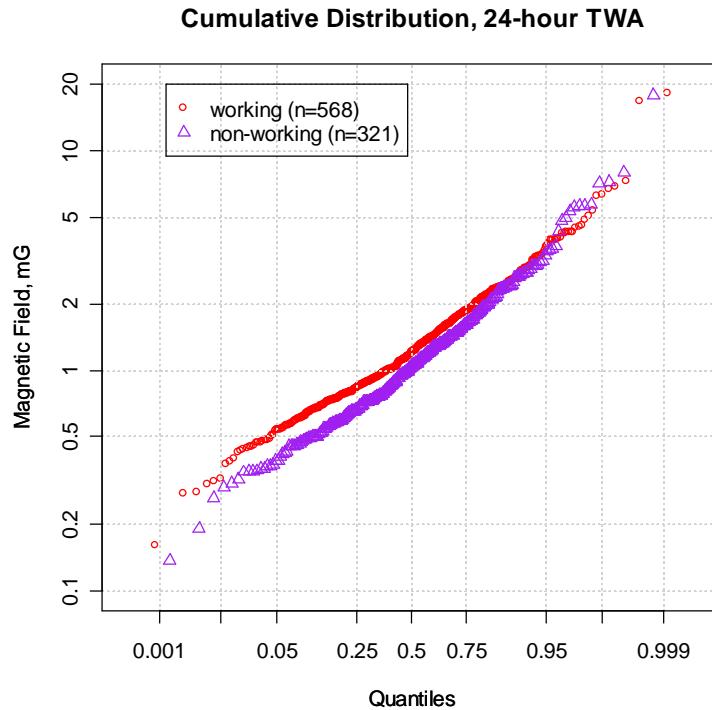


Figure 3.7.2: Comparison of cumulative distributions of 24-hour Harmonic TWA for 'working' and 'non-working' subjects

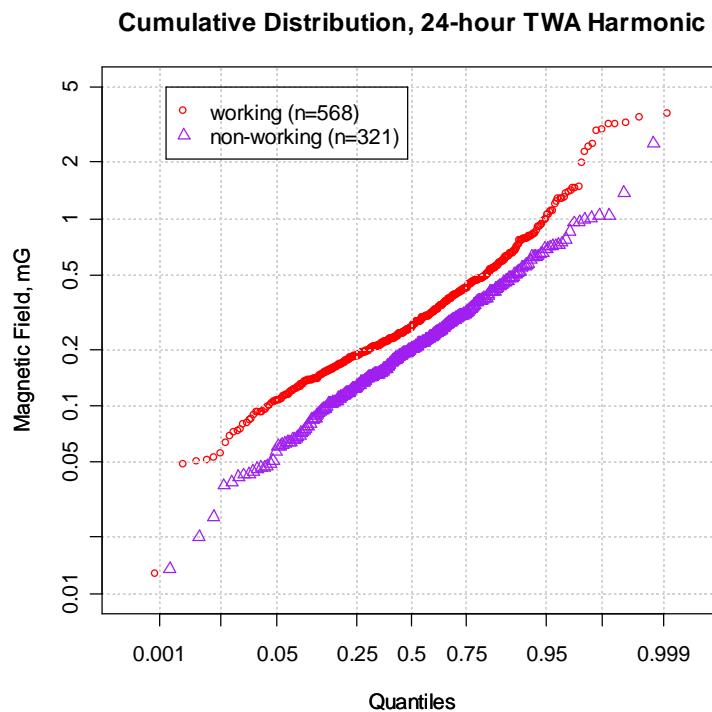


Figure 3.7.3: Comparison of cumulative distributions of 24-hour Rate-of-Change Metric (RCM) for 'working' and 'non-working' subjects

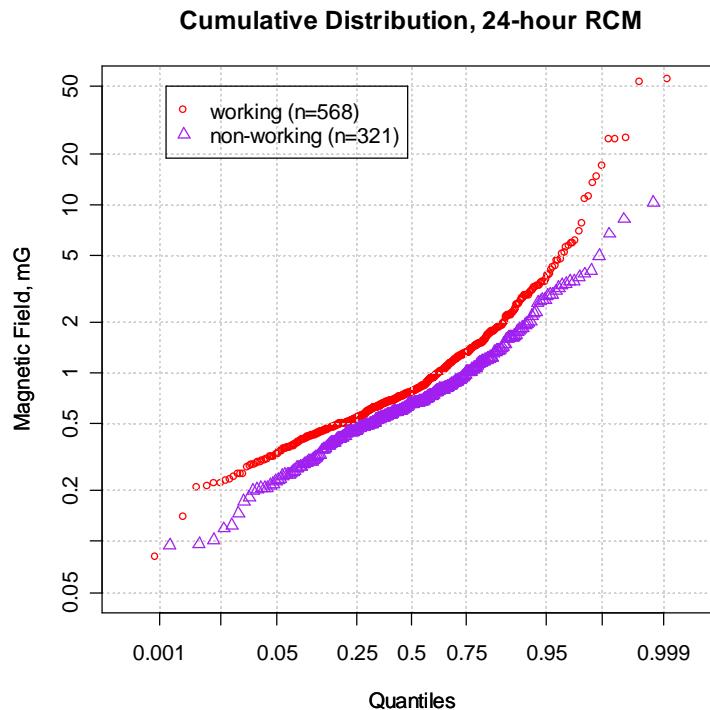


Figure 3.7.4: Comparison of cumulative distributions of 24-hour Dimensionless Rate-of-Change Metric (RCM*) for 'working' and 'non-working' subjects

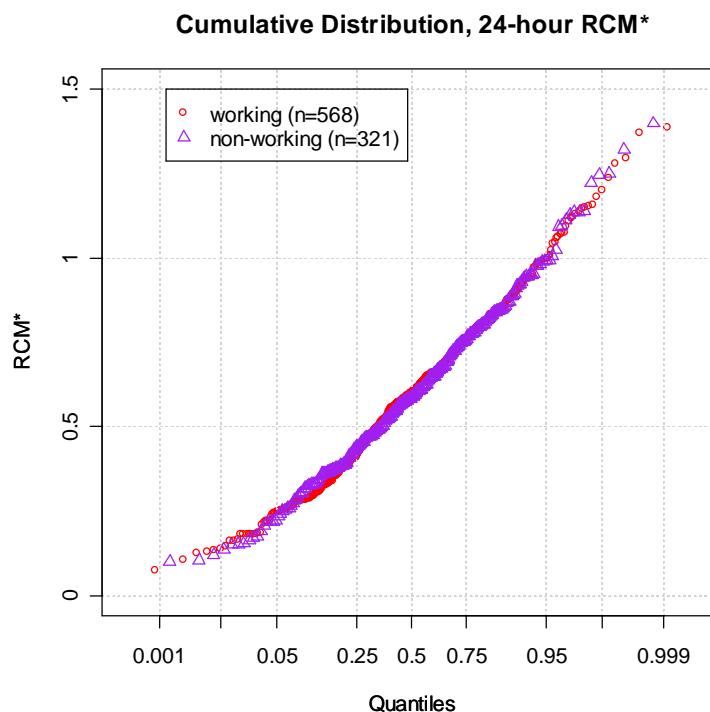


Figure 3.7.5: Comparison of cumulative distributions of 24-hour Sudden Field Changes Exceeding 2.5 mG for 'working' and 'non-working' subjects

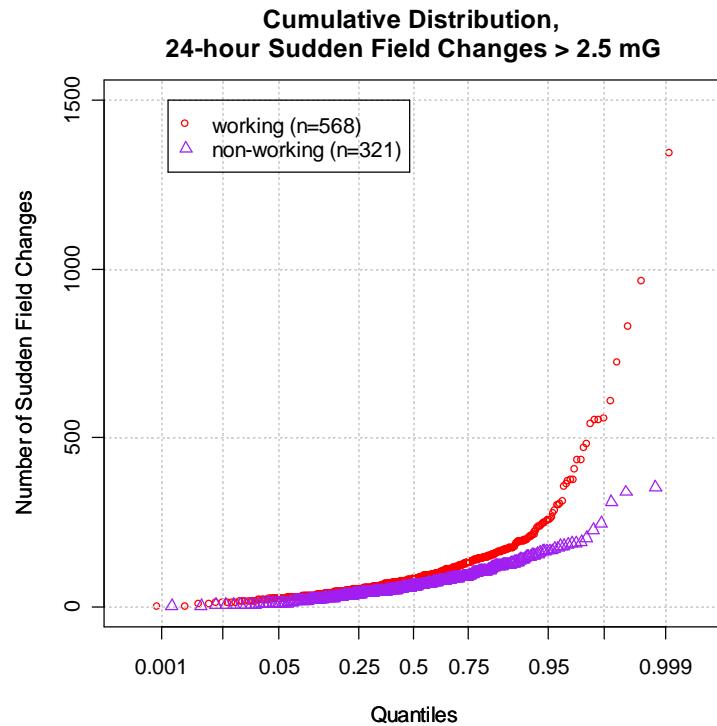


Figure 3.7.6: Comparison of cumulative distributions of 24-hour Sudden Field Changes Exceeding 5 mG for 'working' and 'non-working' subjects

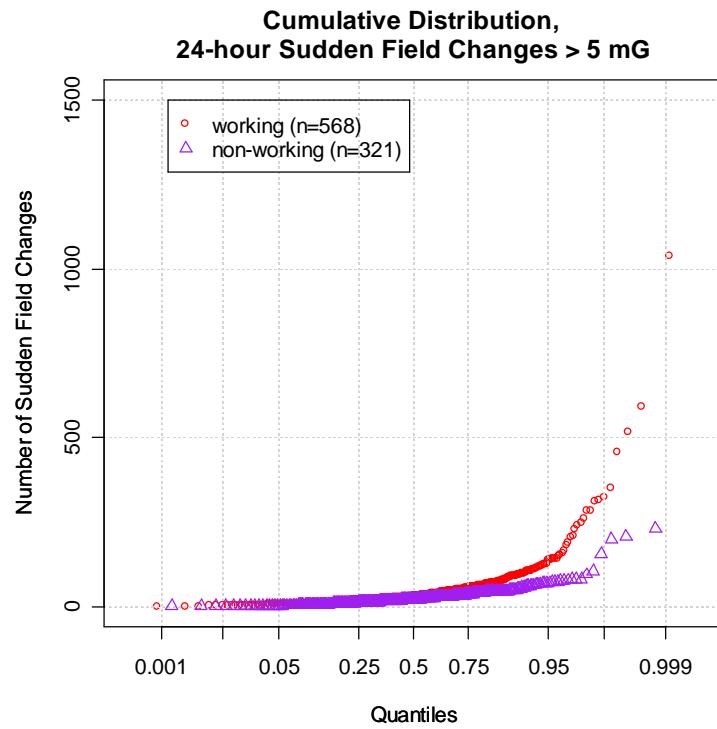


Figure 3.7.7: Comparison of cumulative distributions of 24-hour Longest Period Exceeding 4 mG for 'working' and 'non-working' subjects

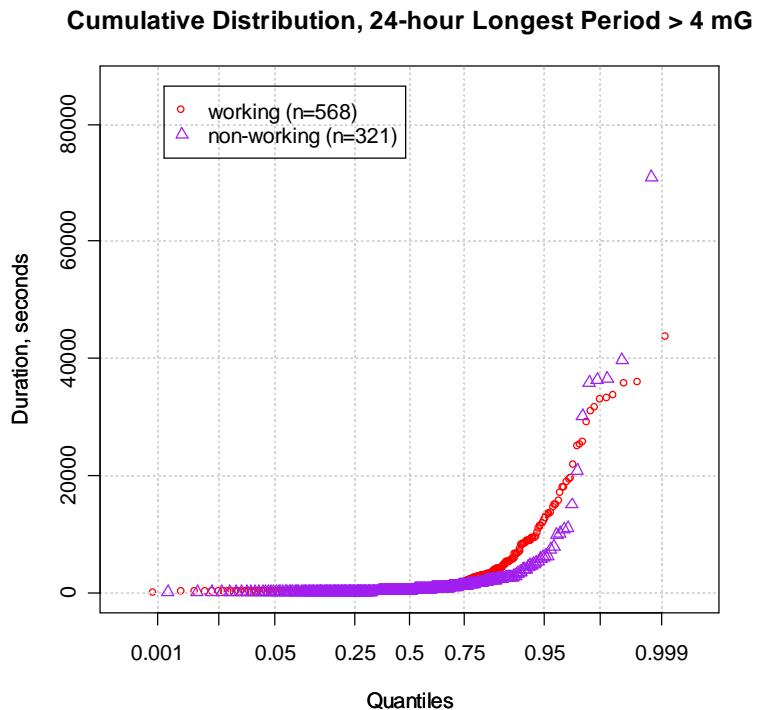


Figure 3.7.8: Comparison of cumulative distributions of 24-hour Longest Period Exceeding 16 mG for 'working' and 'non-working' subjects

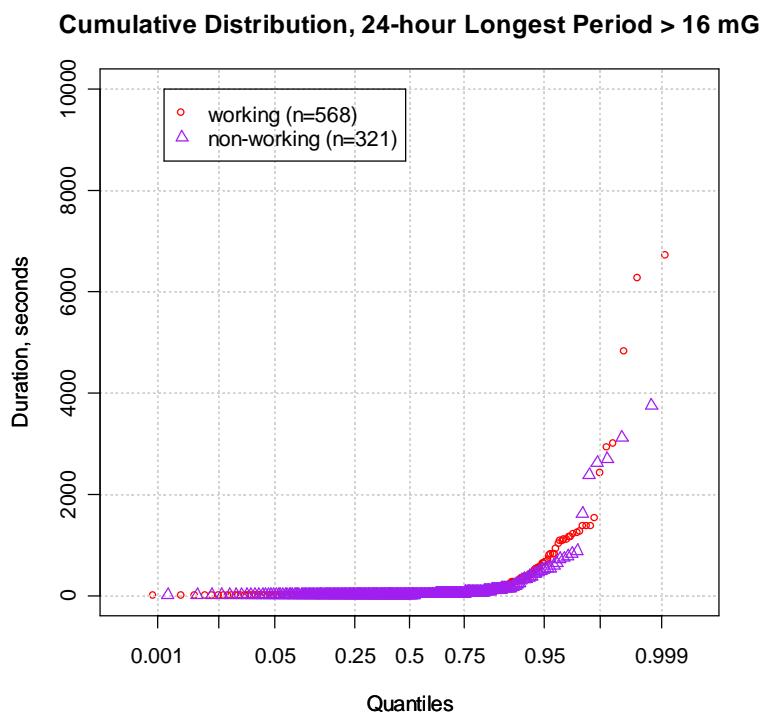


Figure 3.7.9: Comparison of cumulative distributions of 24-hour Fraction of Measurements Exceeding 4 mG for 'working' and 'non-working' subjects

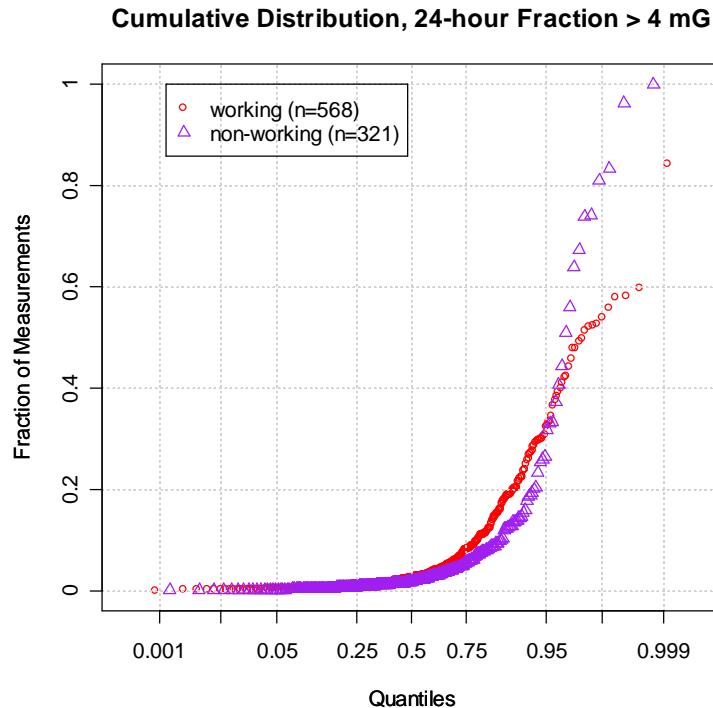


Figure 3.7.10: Comparison of cumulative distributions of 24-hour Fraction of Measurements Exceeding 16 mG for 'working' and 'non-working' subjects

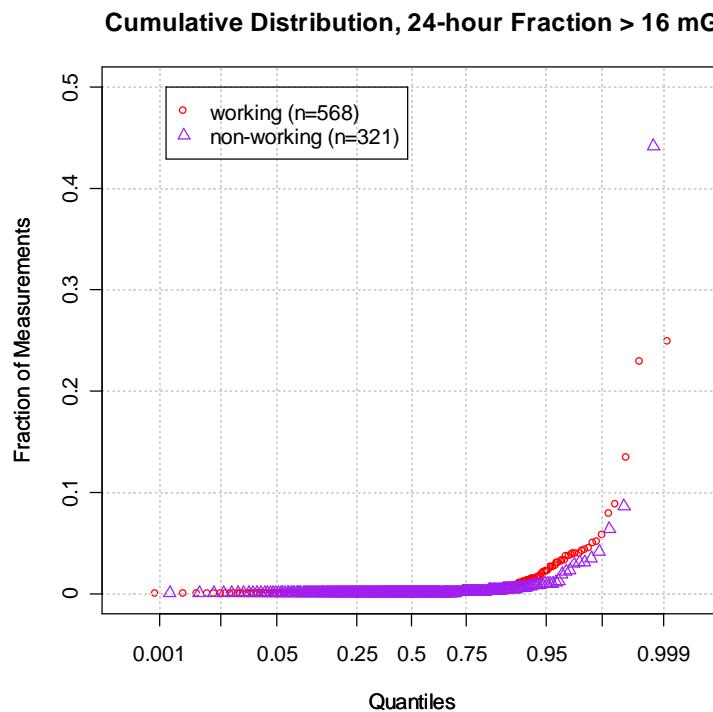


Figure 3.7.11: Comparison of cumulative distributions of 24-hour 90th Percentile for 'working' and 'non-working' subjects

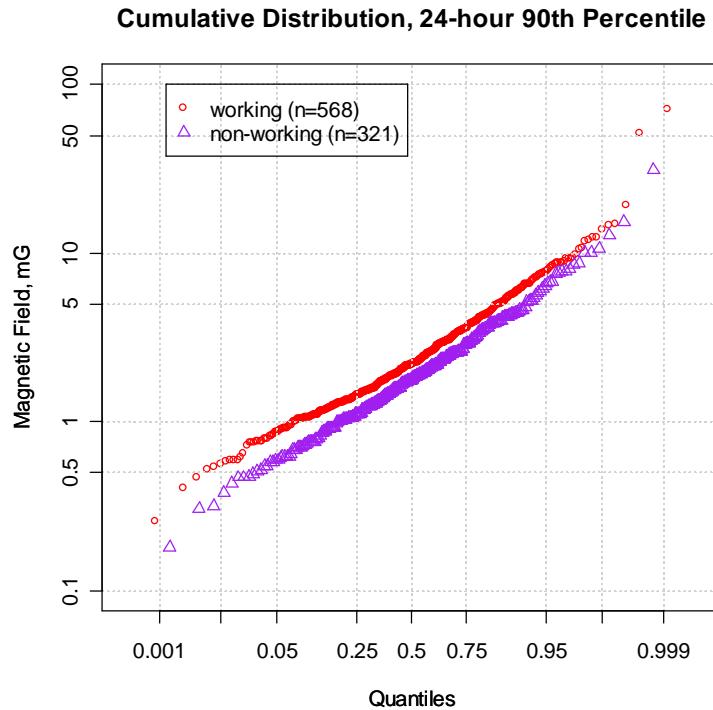


Figure 3.7.12: Comparison of cumulative distributions of 24-hour 95th Percentile for 'working' and 'non-working' subjects

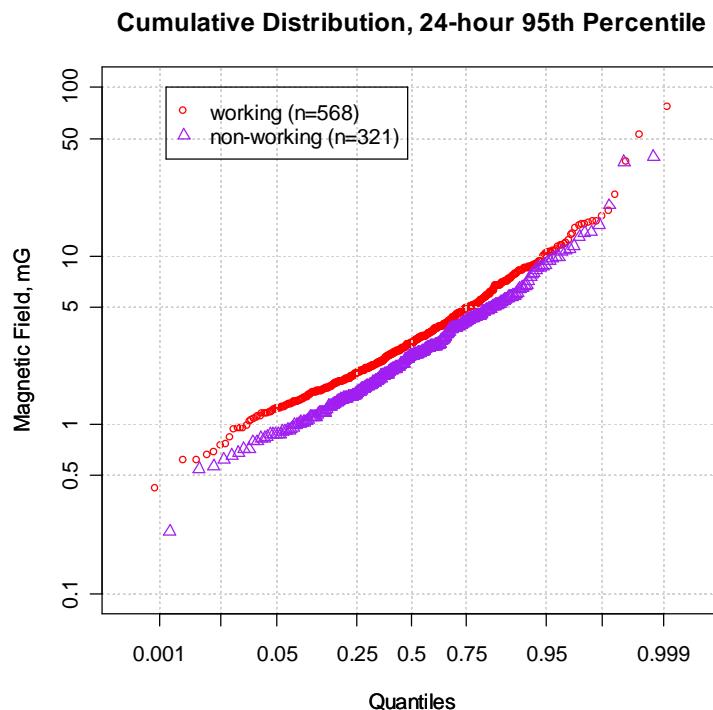


Figure 3.7.13: Comparison of cumulative distributions of 24-hour 99th Percentile for 'working' and 'non-working' subjects

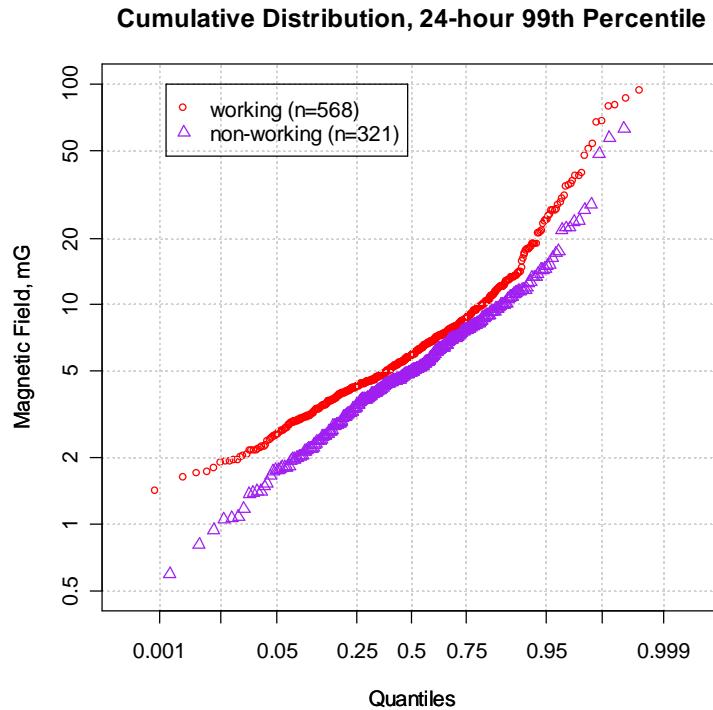
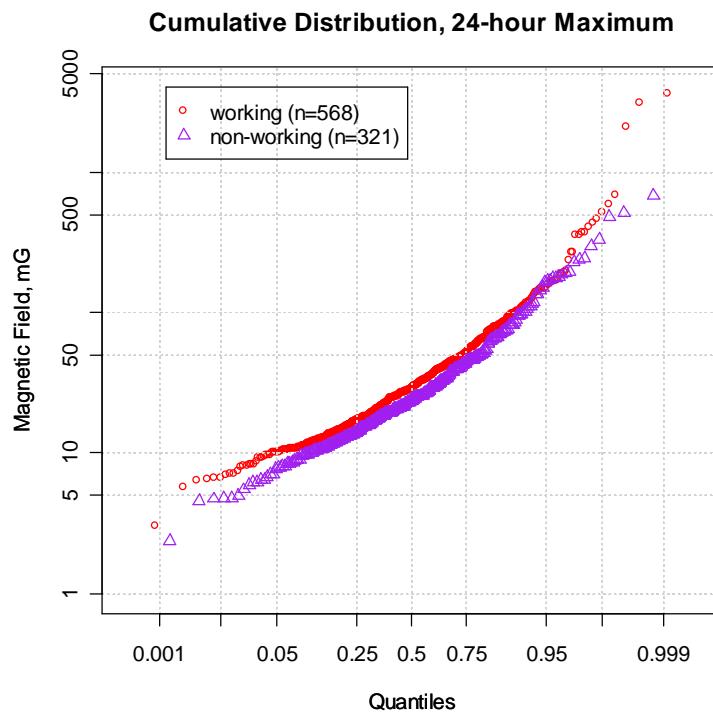


Figure 3.7.14: Comparison of cumulative distributions of 24-hour Maximum for 'working' and 'non-working' subjects



3.8 Comparison of days with and without maximums > 16 mG

In this analysis, subjects were classified by whether their maximum magnetic field exposure was or was not greater than 16 mG. Plots showing both cumulative distributions are presented in Figures 3.8.1 through 3.8.14 for the “matrix” summary measures. In Table 3.8, all of the summary measures showed statistically significant differences between distributions for subjects with and without maximum > 16 mG.

Table 3.8: Kruskal-Wallis test results comparing distributions of 'matrix' parameters between days with and without Maximum exceeding 16 mG

Parameter	Test statistic	Degrees of freedom	P-value
TWA	26.3	1	2.88E-07
Harmonic TWA	27.5	1	1.58E-07
RCM	407.5	1	1.30E-90
RCM*	58.1	1	2.54E-14
Sudden field changes > 2.5 mG	173.6	1	1.18E-39
Sudden field changes > 5 mG	260.7	1	1.22E-58
Longest period > 4 mG	26.9	1	2.10E-07
Longest period > 16 mG	564.3	1	9.67E-125
Fraction of measurements > 4 mG	53.8	1	2.17E-13
Fraction of measurements > 16 mG	558.4	1	1.87E-123
90th percentile	15.2	1	9.89E-05
95th percentile	30.9	1	2.68E-08
99th percentile	105.1	1	1.16E-24
Maximum magnetic field	548.3	1	2.92E-121

Figure 3.8.1: Comparison of cumulative distributions of 24-hour TWA for days with and without maximum exceeding 16 mG

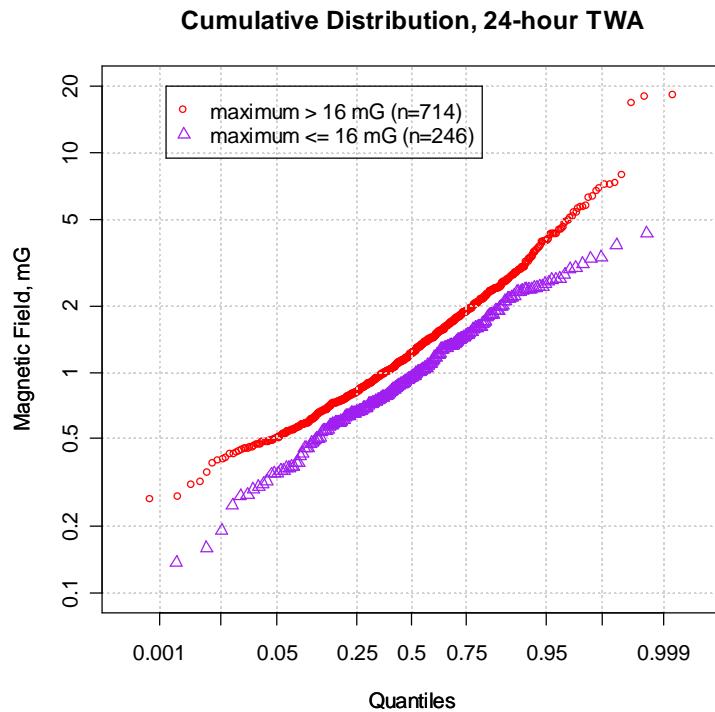


Figure 3.8.2: Comparison of cumulative distributions of 24-hour Harmonic TWA for days with and without maximum exceeding 16 mG

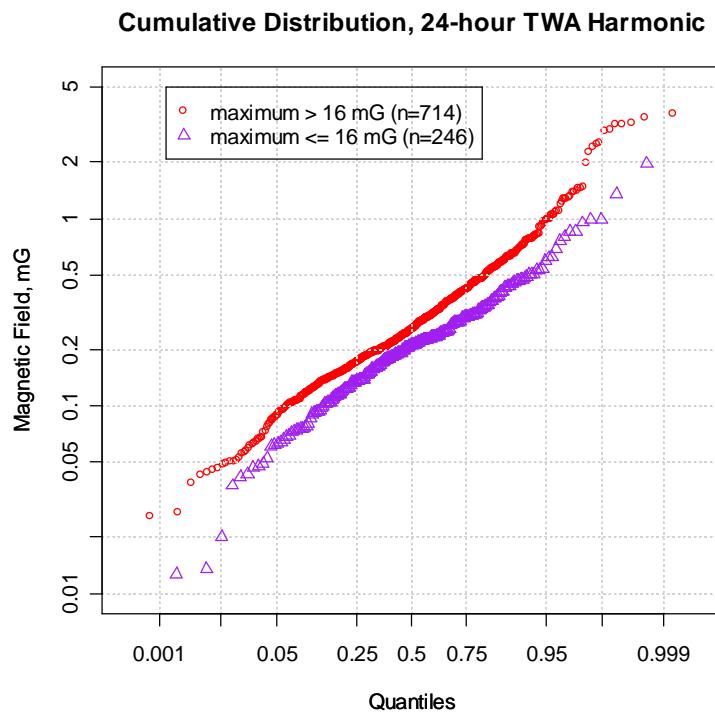


Figure 3.8.3: Comparison of cumulative distributions of 24-hour Rate-of-Change Metric (RCM) for days with and without maximum exceeding 16 mG

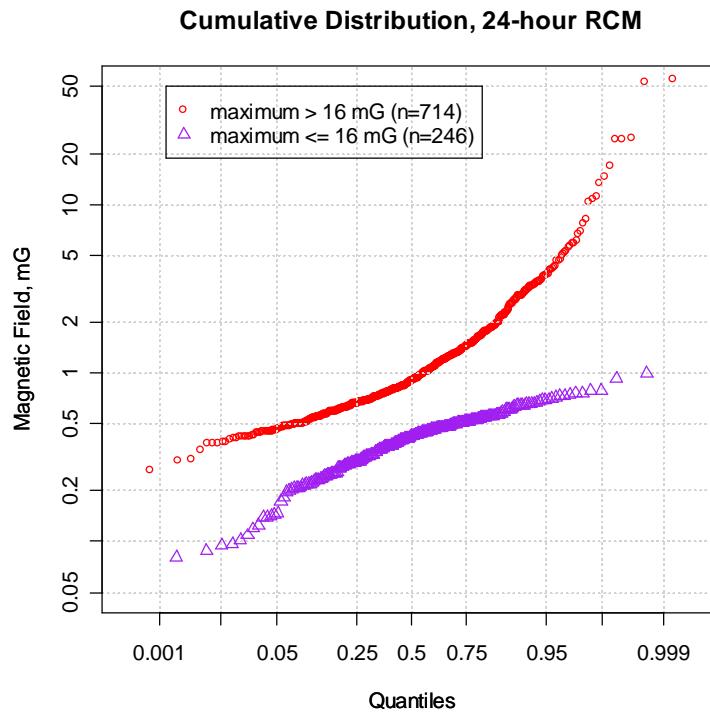


Figure 3.8.4: Comparison of cumulative distributions of 24-hour Dimensionless Rate-of-Change Metric (RCM*) for days with and without maximum exceeding 16 mG

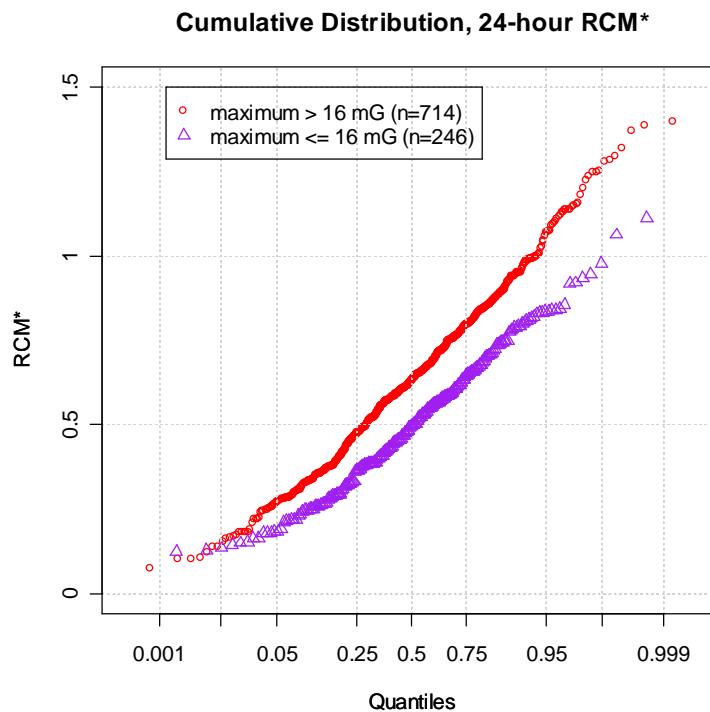


Figure 3.8.5: Comparison of cumulative distributions of 24-hour Sudden Field Changes Exceeding 2.5 mG for days with and without maximum exceeding 16 mG

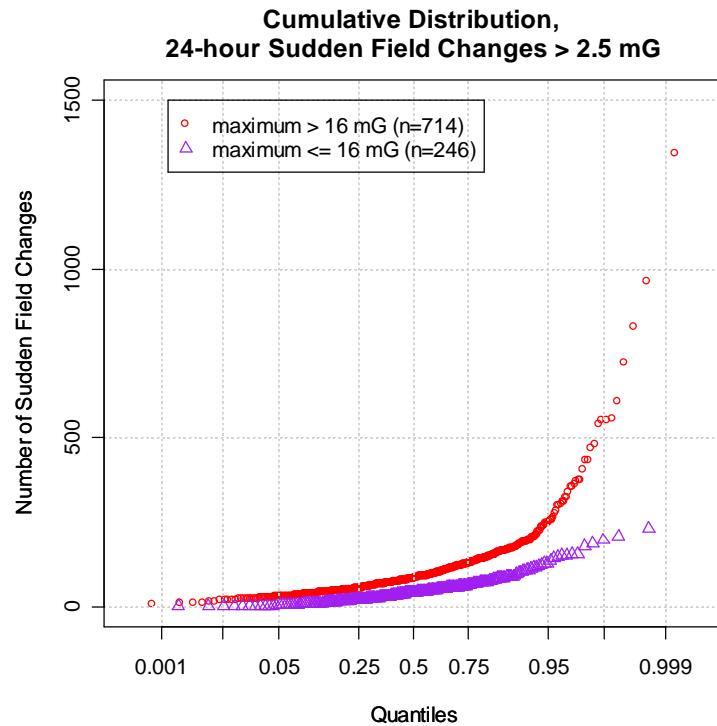


Figure 3.8.6: Comparison of cumulative distributions of 24-hour Sudden Field Changes Exceeding 5 mG for days with and without maximum exceeding 16 mG

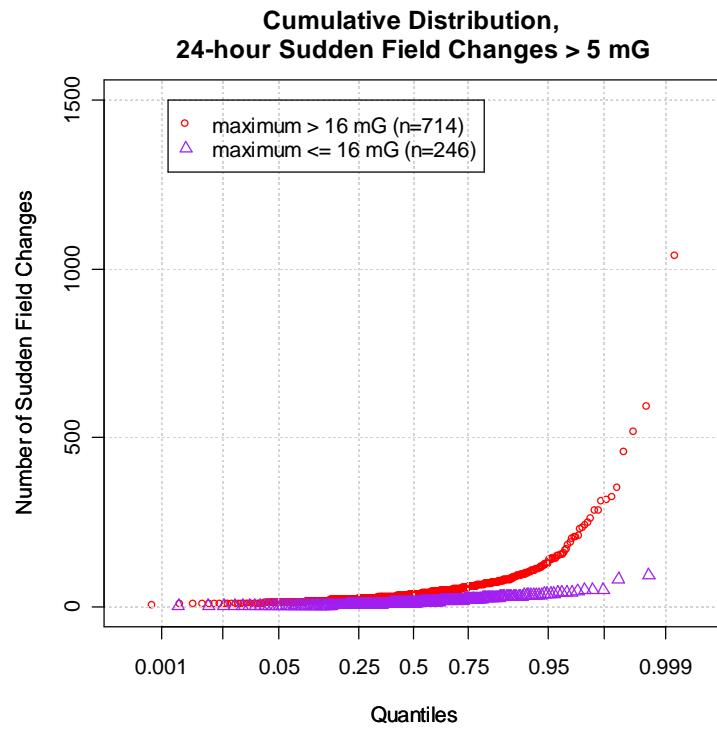


Figure 3.8.7: Comparison of cumulative distributions of 24-hour Longest Period Exceeding 4 mG for days with and without maximum exceeding 16 mG

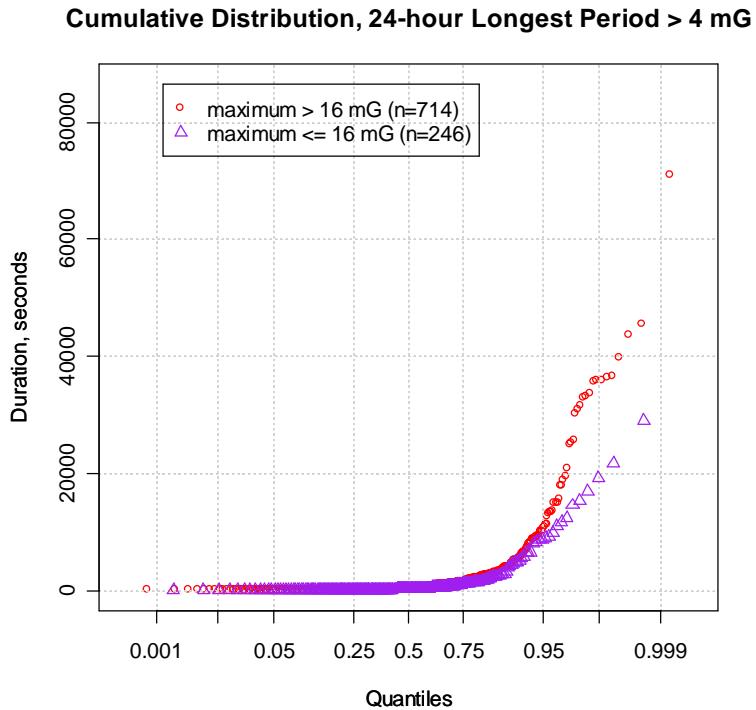


Figure 3.8.8: Comparison of cumulative distributions of 24-hour Longest Period Exceeding 16 mG for days with and without maximum exceeding 16 mG

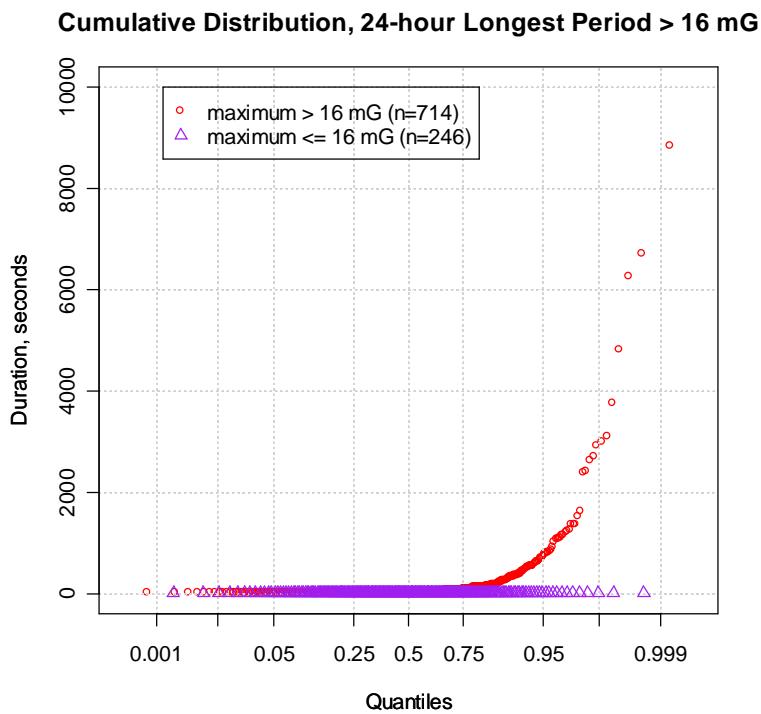


Figure 3.8.9: Comparison of cumulative distributions of 24-hour Fraction of Measurements Exceeding 4 mG for days with and without maximum exceeding 16 mG

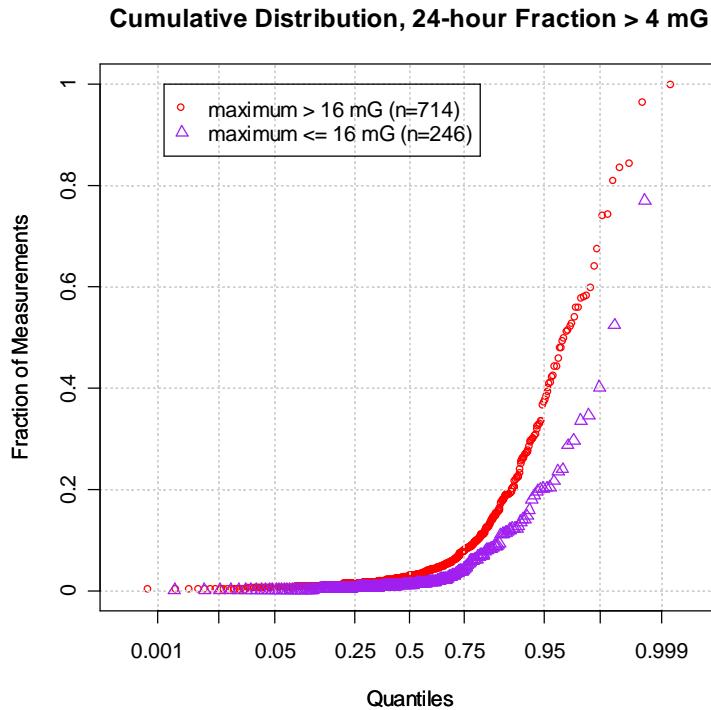


Figure 3.8.10: Comparison of cumulative distributions of 24-hour Fraction of Measurements Exceeding 16 mG for days with and without maximum exceeding 16 mG

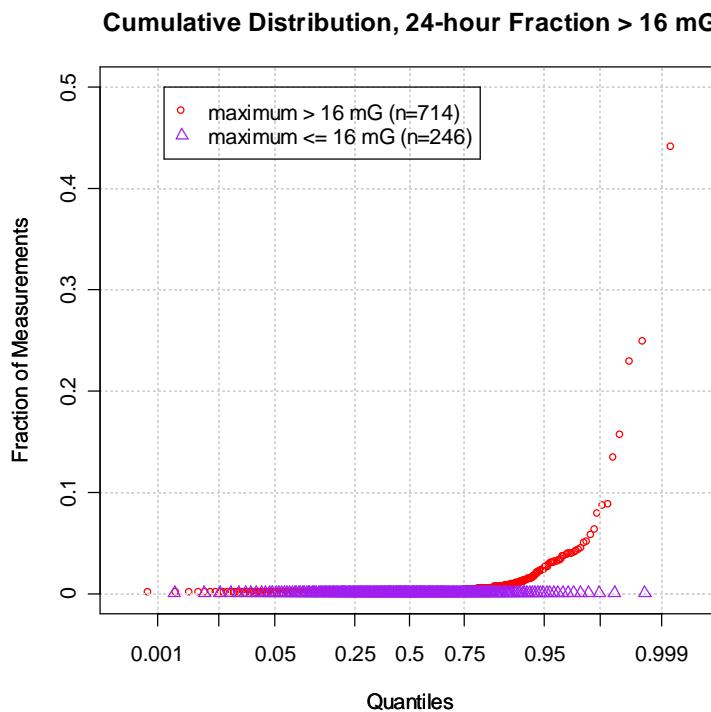


Figure 3.8.11: Comparison of cumulative distributions of 24-hour 90th Percentile for days with and without maximum exceeding 16 mG

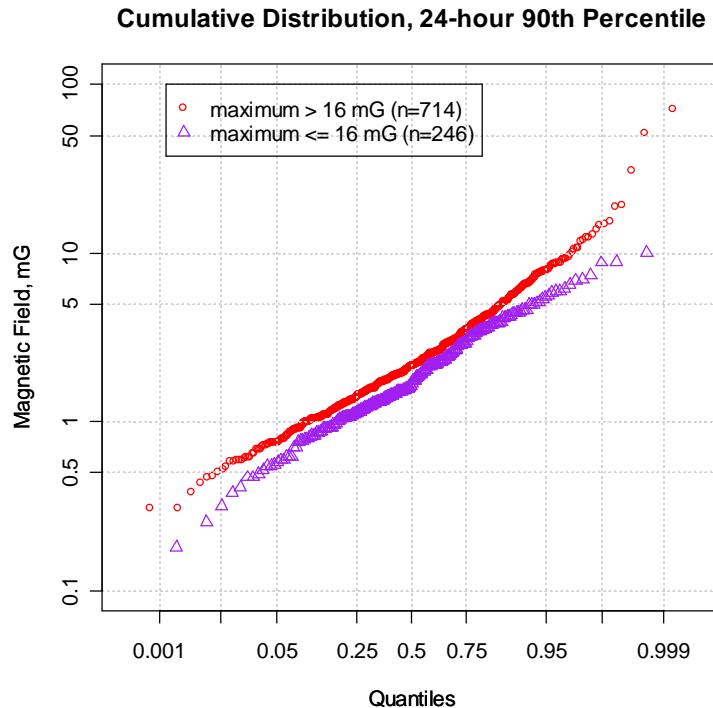


Figure 3.8.12: Comparison of cumulative distributions of 24-hour 95th Percentile for days with and without maximum exceeding 16 mG

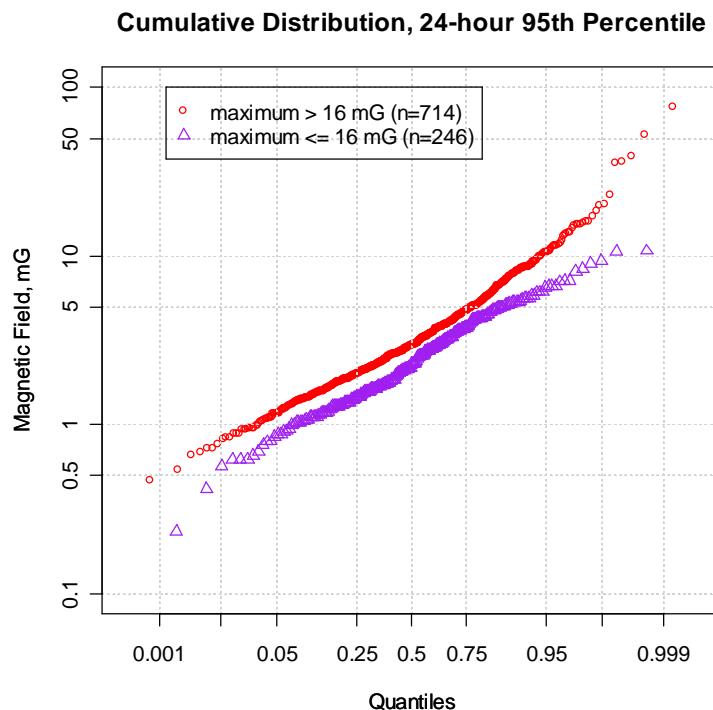


Figure 3.8.13: Comparison of cumulative distributions of 24-hour 99th Percentile for days with and without maximum exceeding 16 mG

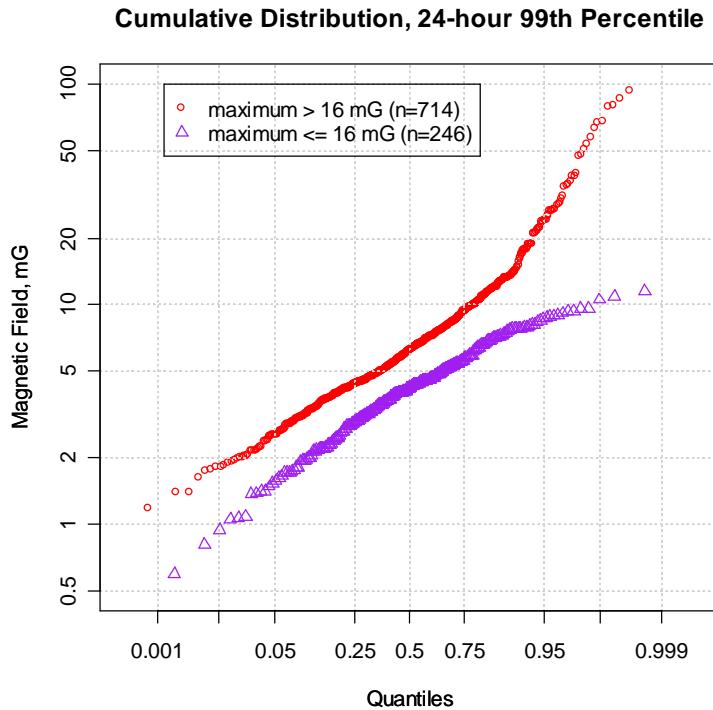
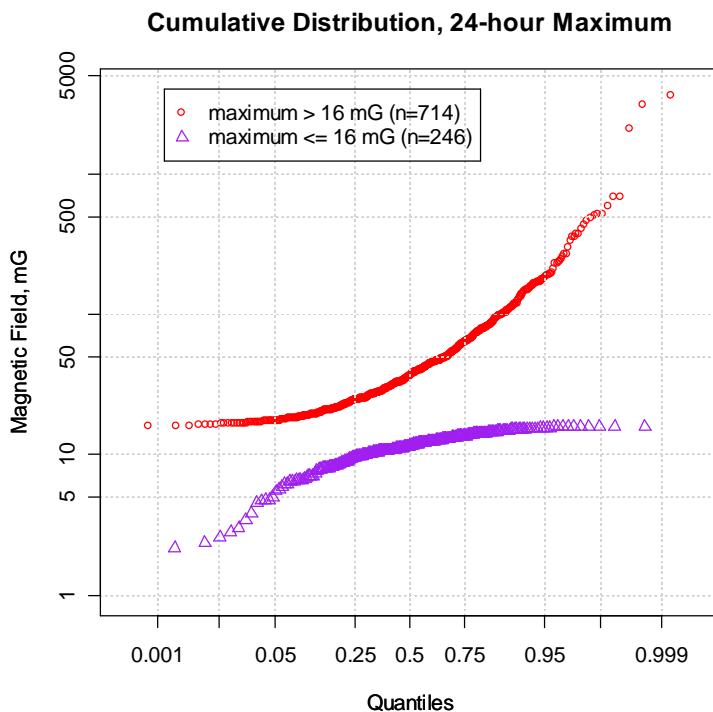


Figure 3.8.14: Comparison of cumulative distributions of 24-hour Maximum for days with and without maximum exceeding 16 mG



3.9 Investigation of the influence of EMDEX serial number on the fraction of 24-hour day above 16 mG.

EMDEX meters were used for multiple subjects in the study. To assess the consistency of results across meters, the fraction of measurements above 16 mG was compared across the 36 meters (and three “unknown” categories) used in the study. The three “unknown” values present for the EMDEX serial number are: -999, indicating no serial number information was available; -998, indicating “enertech” was recorded on the data collection form; and -997, indicating “etc-1”, was recorded on the data collection form. These three values have been considered to be separate EMDEX meters in this analysis. Descriptive statistics for the fraction of measurements exceeding 16 mG in a 24-hour period for each meter is presented in Table 3.9.1. Results of an analysis of variance (ANOVA) is presented in Table 3.9.2. Box-and-whisker plots are presented in Figures 3.9.1 and 3.9.2 showing the distribution of the fraction of 24-hour measurements greater than 16 mG by EMDEX serial number. Figure 3.9.2 shows the same data as Figure 3.9.1, but with an expanded scale to better show the lower values.

Table 3.9.1: Summary measures for Fraction of Measurements Exceeding 16 mG by EMDEX serial number

EMDEX	N	Mean	Standard deviation	Geometric mean	50th %ile	95th %ile	99th %ile	Maximum
-999	2	0.0015	0.0021	NA	0.0015	0.0029	0.0030	0.0030
-998	5	0.0003	0.0004	NA	0.0001	0.0009	0.0010	0.0010
-997	30	0.0033	0.0104	NA	0.0005	0.0062	0.0423	0.0571
923	1	0.0263	NA	0.0263	0.0263	0.0263	0.0263	0.0263
927	1	0.0002	NA	0.0002	0.0002	0.0002	0.0002	0.0002
1045	42	0.0030	0.0120	NA	0.0006	0.0062	0.0494	0.0780
1084	29	0.0022	0.0055	NA	0.0006	0.0054	0.0231	0.0297
1099	37	0.0045	0.0101	NA	0.0005	0.0250	0.0419	0.0424
1196	33	0.0069	0.0167	NA	0.0006	0.0333	0.0706	0.0862
1294	27	0.0024	0.0050	NA	0.0009	0.0053	0.0207	0.0260
1295	25	0.0026	0.0059	NA	0.0007	0.0049	0.0241	0.0301
1296	7	0.0026	0.0033	0.0012	0.0012	0.0078	0.0091	0.0094
1316	16	0.0012	0.0025	NA	0.0002	0.0060	0.0086	0.0093
1330	41	0.0016	0.0050	NA	0.0003	0.0034	0.0225	0.0310
1331	20	0.0015	0.0029	NA	0.0005	0.0041	0.0111	0.0128
1332	13	0.0016	0.0022	NA	0.0006	0.0054	0.0068	0.0072
1361	17	0.0057	0.0141	NA	0.0005	0.0374	0.0476	0.0501
1403	36	0.0017	0.0035	NA	0.0004	0.0105	0.0127	0.0132
1405	24	0.0020	0.0032	NA	0.0005	0.0071	0.0121	0.0135
1581	44	0.0128	0.0665	NA	0.0004	0.0221	0.2655	0.4419
1586	36	0.0032	0.0080	NA	0.0005	0.0160	0.0356	0.0387
1588	28	0.0040	0.0104	NA	0.0005	0.0310	0.0391	0.0394
2001	5	0.0042	0.0086	0.0007	0.0006	0.0158	0.0188	0.0196
2007	7	0.0195	0.0503	NA	0.0002	0.0942	0.1257	0.1335
2013	1	0.0005	NA	0.0005	0.0005	0.0005	0.0005	0.0005
2028	39	0.0064	0.0251	NA	0.0007	0.0151	0.1058	0.1566
2029	29	0.0017	0.0019	NA	0.0008	0.0046	0.0068	0.0075
2043	33	0.0116	0.0440	NA	0.0003	0.0448	0.1850	0.2480
2081	10	0.0009	0.0016	NA	0.0003	0.0034	0.0049	0.0052
2151	28	0.0061	0.0178	NA	0.0003	0.0311	0.0739	0.0880
2158	32	0.0027	0.0077	NA	0.0003	0.0149	0.0332	0.0358
2298	38	0.0075	0.0370	NA	0.0003	0.0092	0.1499	0.2286
2334	34	0.0041	0.0120	NA	0.0002	0.0176	0.0533	0.0633
2374	15	0.0011	0.0022	NA	0.0003	0.0058	0.0072	0.0076
2377	45	0.0019	0.0045	NA	0.0003	0.0102	0.0196	0.0257
2378	27	0.0020	0.0044	NA	0.0007	0.0118	0.0177	0.0188
2380	25	0.0013	0.0023	NA	0.0005	0.0064	0.0089	0.0095
2386	39	0.0036	0.0088	NA	0.0006	0.0209	0.0386	0.0447
2388	39	0.0018	0.0040	NA	0.0006	0.0091	0.0175	0.0216

Table 3.9.2: Analysis of variance (ANOVA) for Fraction of Measurements Exceeding 16 mG by EMDEX serial number

	Degrees of Freedom	Sum of Squares	Mean Squares	F-value	Pr(>F)
EMDEX	1	0.00006	0.00006	0.1477	0.7008
Residuals	958	0.40760	0.00043		

Figure 3.9.1: 24-hour Fraction of Measurements Exceeding 16 mG by EMDEX serial number

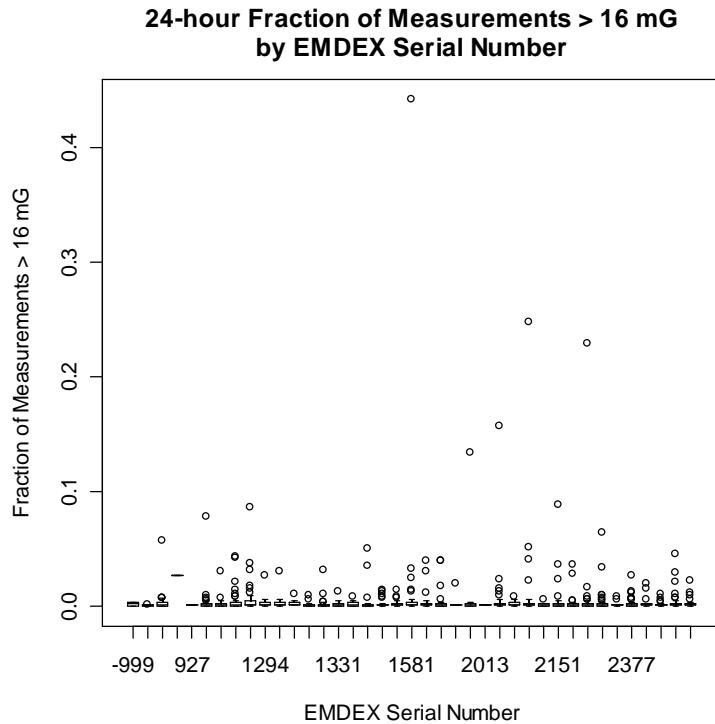
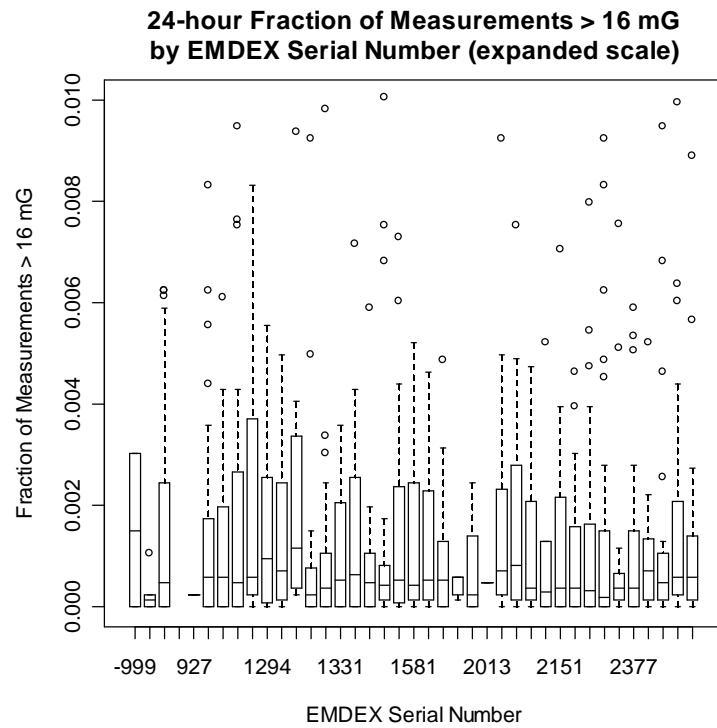


Figure 3.9.2: 24-hour Fraction of Measurements Exceeding 16 mG by EMDEX serial number (expanded scale)



3.10 Investigation of the influence of various neighborhood characteristics on the “matrix” summary measures for 24-hour and Home exposures.

Box-and-whisker plots are presented in Figures 3.10.1 through 3.10.140 for various permutations of neighborhood characteristic, “matrix” summary measure, and whether the response variable is a 24-hour exposure or Home exposure. In the corresponding Tables 3.10.1 through 3.10.140, the summary measures for each of the distributions are presented. ANOVA and Kruskal-Wallis tests were performed for each of the box-and-whisker plots. The results of these tests are consolidated and presented in Tables 3.10.141 through 3.10.160.

The neighborhood characteristics analyzed are:

- Wire-code Category: underground (UG), very low current configuration (VLCC), ordinary low current configuration (OLCC), ordinary high current configuration (OHCC), and very high current configuration (VHCC);
- Transformer wiring: delta; and wye;
- Block type: cul de sac; other, and rectangular;
- Street type: one-way, two-way with median, two-way without median; and
- Proximity to train: no train; nearby train.

Figure 3.10.1: Distribution of 24-hour TWA by Wire-code Category

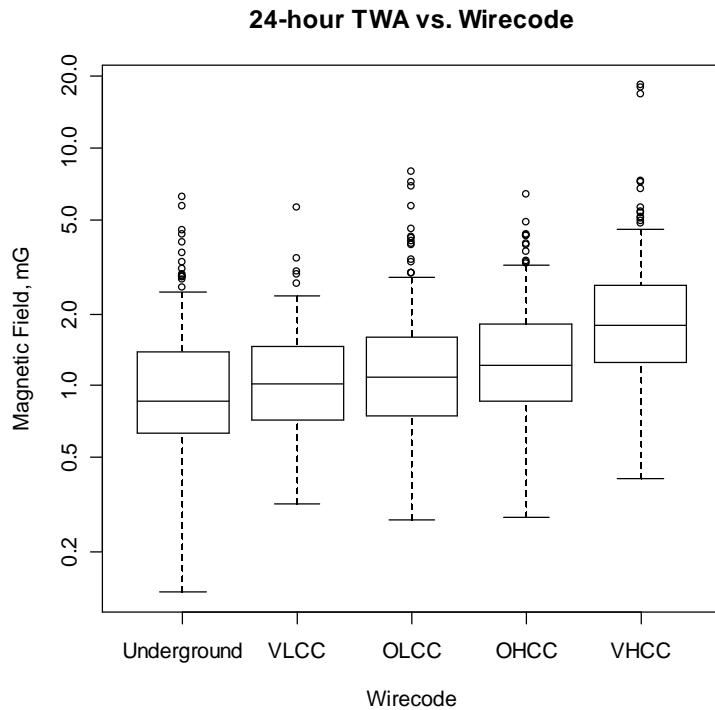


Table 3.10.1: Summary measures for 24-hour TWA by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	1.18	0.89	0.95	0.86	2.86	4.44	6.23
VLCC	62	1.25	0.88	1.04	1.01	2.91	4.27	5.62
OLCC	257	1.37	1.04	1.13	1.09	2.99	6.17	7.92
OHCC	282	1.45	0.86	1.25	1.22	3.15	4.29	6.33
VHCC	133	2.48	2.69	1.87	1.80	5.44	17.57	18.23

Figure 3.10.2: Distribution of 24-hour Harmonic TWA by Wire-code Category

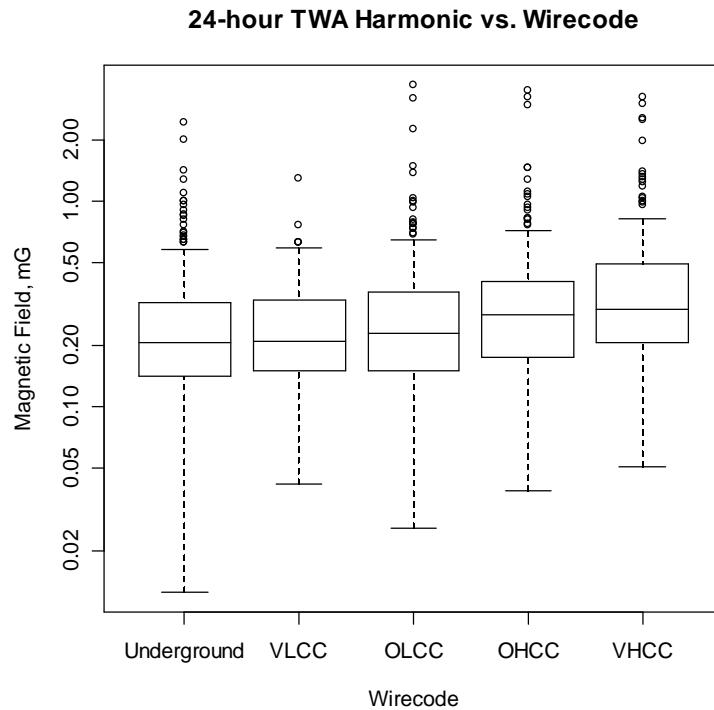


Table 3.10.2: Summary measures for 24-hour Harmonic TWA by Wire-code Category

	n	mean	std.dev	geo.means n	p50	p95	p99	max
UG	226	0.29	0.28	0.21	0.20	0.80	1.37	2.42
VLCC	62	0.27	0.20	0.22	0.21	0.63	0.97	1.29
OLCC	257	0.32	0.37	0.23	0.23	0.77	1.81	3.64
OHCC	282	0.35	0.37	0.27	0.28	0.81	1.74	3.43
VHCC	133	0.48	0.52	0.34	0.30	1.33	2.83	3.23

Figure 3.10.3: Distribution of 24-hour Rate-of-Change Metric (RCM) by Wire-code Category

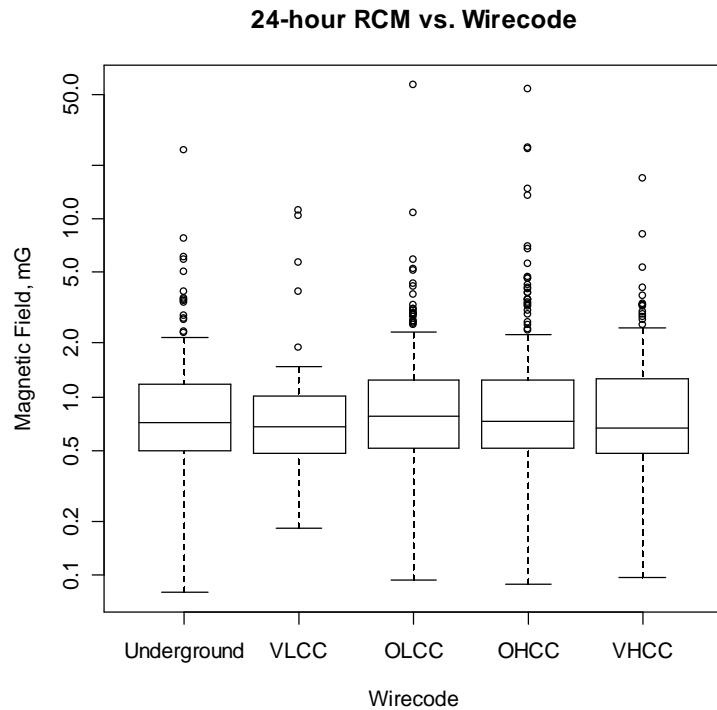


Table 3.10.3: Summary measures for 24-hour Rate-of-Change Metric (RCM) by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	1.10	1.82	0.77	0.72	2.72	6.02	24.24
VLCC	62	1.17	1.93	0.74	0.68	3.77	10.59	11.01
OLCC	257	1.30	3.55	0.84	0.78	2.93	5.49	55.49
OHCC	282	1.51	3.97	0.85	0.73	3.81	16.39	53.55
VHCC	133	1.19	1.75	0.80	0.66	3.25	7.25	16.86

Figure 3.10.4: Distribution of 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Wire-code Category

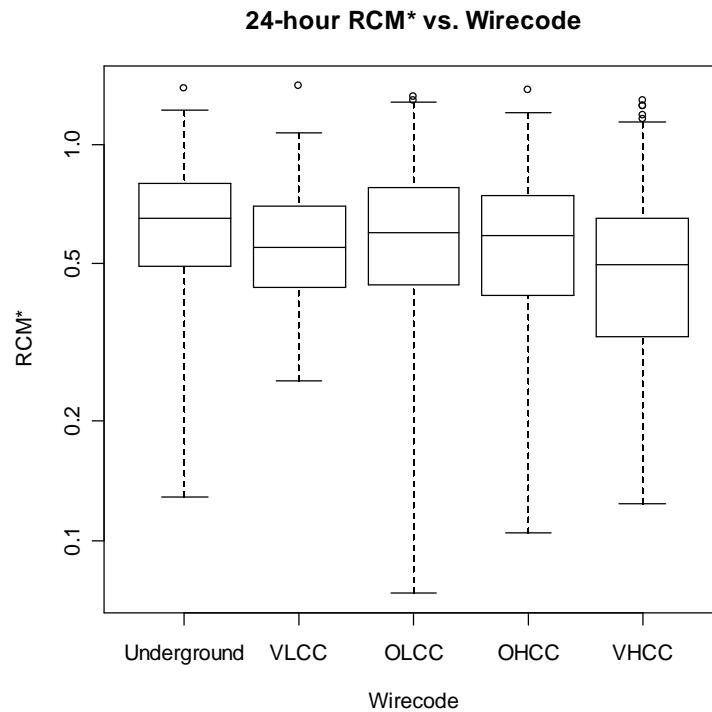


Table 3.10.4: Summary measures for 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	0.647	0.234	0.596	0.652	1.006	1.152	1.387
VLCC	62	0.594	0.218	0.558	0.551	0.963	1.200	1.400
OLCC	257	0.616	0.244	0.560	0.597	1.030	1.263	1.322
OHCC	282	0.592	0.224	0.545	0.589	0.979	1.113	1.370
VHCC	133	0.531	0.259	0.471	0.496	1.097	1.250	1.285

Figure 3.10.5: Distribution of 24-hour Sudden Field Changes Exceeding 2.5 mG by Wire-code Category

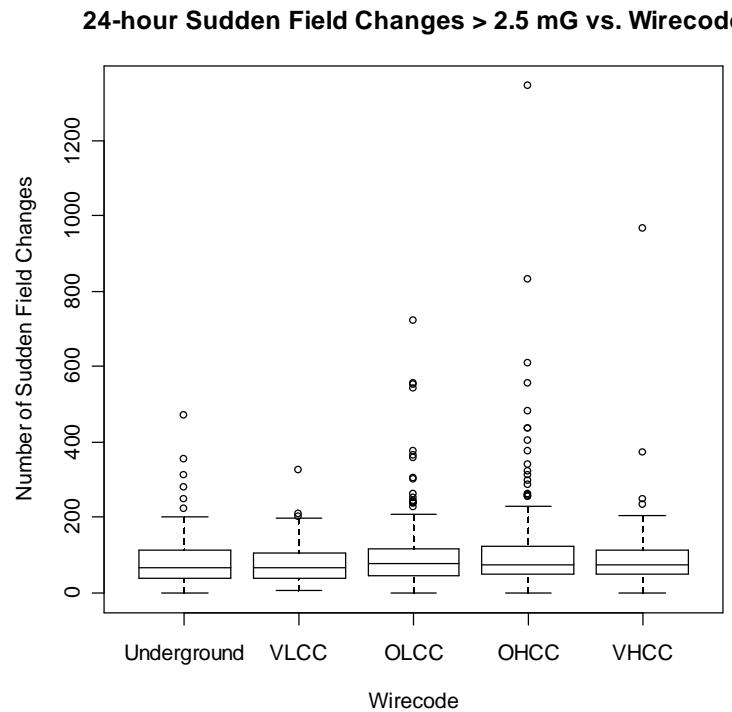


Table 3.10.5: Summary measures for 24-hour Sudden Field Changes Exceeding 2.5 mG by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	81	63	NA	66	192	302	468
VLCC	62	80	59	60	67	197	252	323
OLCC	257	94	89	NA	77	238	544	721
OHCC	282	103	121	NA	74	262	564	1343
VHCC	133	90	95	NA	74	189	331	965

Figure 3.10.6: Distribution of 24-hour Sudden Field Changes Exceeding 5 mG by Wire-code Category

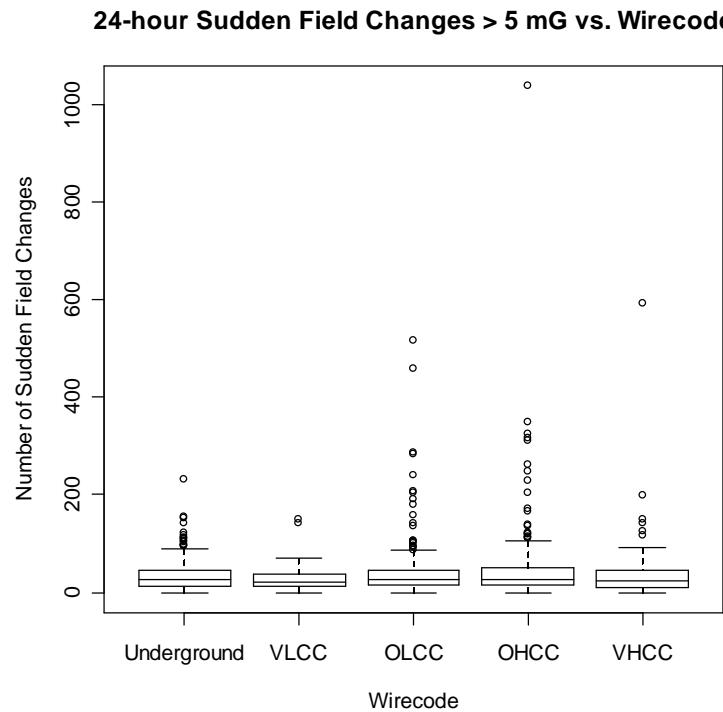


Table 3.10.6: Summary measures for 24-hour Sudden Field Changes Exceeding 5 mG by Wire-code Category

	n	mean	std.dev	geo.meana	p50	p95	p99	max
UG	226	34	32	NA	25	97	150	232
VLCC	62	28	27	NA	22	66	143	148
OLCC	257	41	57	NA	26	106	284	515
OHCC	282	46	78	NA	27	119	317	1037
VHCC	133	38	58	NA	24	88	183	593

Figure 3.10.7: Distribution of 24-hour Longest Period Exceeding 4 mG by Wire-code Category

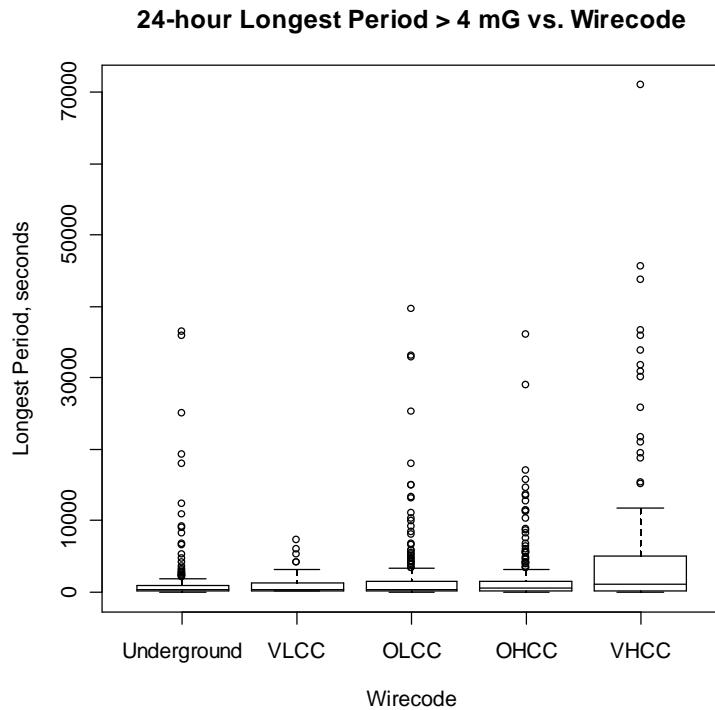


Table 3.10.7: Summary measures for 24-hour Longest Period Exceeding 4 mG by Wire-code Category

	n	mean	std.dev	geo.me an	p50	p95	p99	max
UG	226	1382	4357	NA	225	6148	23573	36380
VLCC	62	995	1514	351	325	4039	6420	7250
OLCC	257	1849	4723	NA	360	8440	28514	39680
OHCC	282	1685	3782	NA	440	8195	15804	35970
VHCC	133	5484	10928	NA	1020	31186	44977	70940

Figure 3.10.8: Distribution of 24-hour Longest Period Exceeding 16 mG by Wire-code Category

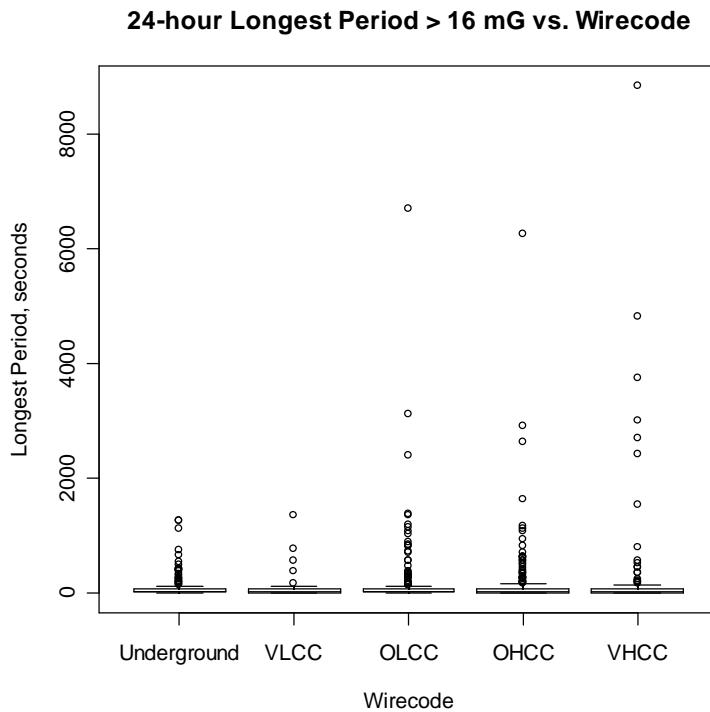


Table 3.10.8: Summary measures for 24-hour Longest Period Exceeding 16 mG by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	69	170	NA	20	378	1008	1260
VLCC	62	71	208	NA	10	350	996	1350
OLCC	257	137	523	NA	20	728	1813	6710
OHCC	282	125	473	NA	20	559	1810	6260
VHCC	133	253	1005	NA	10	1082	4471	8840

Figure 3.10.9: Distribution of 24-hour Fraction of Measurements Exceeding 4 mG by Wirecode Category

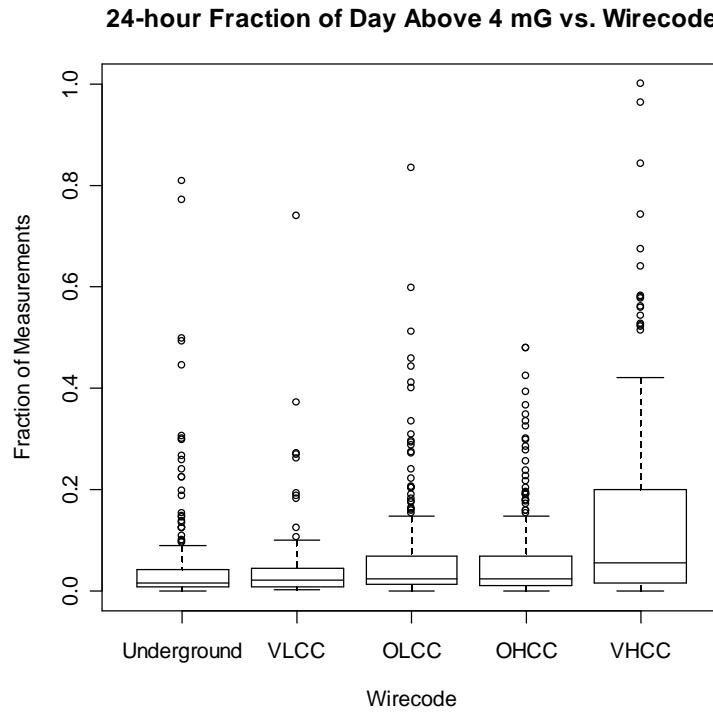


Table 3.10.9: Summary measures for 24-hour Fraction of Measurements Exceeding 4 mG by Wirecode Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	0.0478	0.1031	NA	0.0141	0.2237	0.4953	0.8094
VLCC	62	0.0610	0.1174	0.0197	0.0201	0.2682	0.5151	0.7392
OLCC	257	0.0612	0.1024	NA	0.0236	0.2706	0.4811	0.8340
OHCC	282	0.0570	0.0824	NA	0.0225	0.2251	0.3967	0.4785
VHCC	133	0.1519	0.2148	NA	0.0532	0.5802	0.9251	0.9994

Figure 3.10.10: Distribution of 24-hour Fraction of Measurements Exceeding 16 mG by Wirecode Category

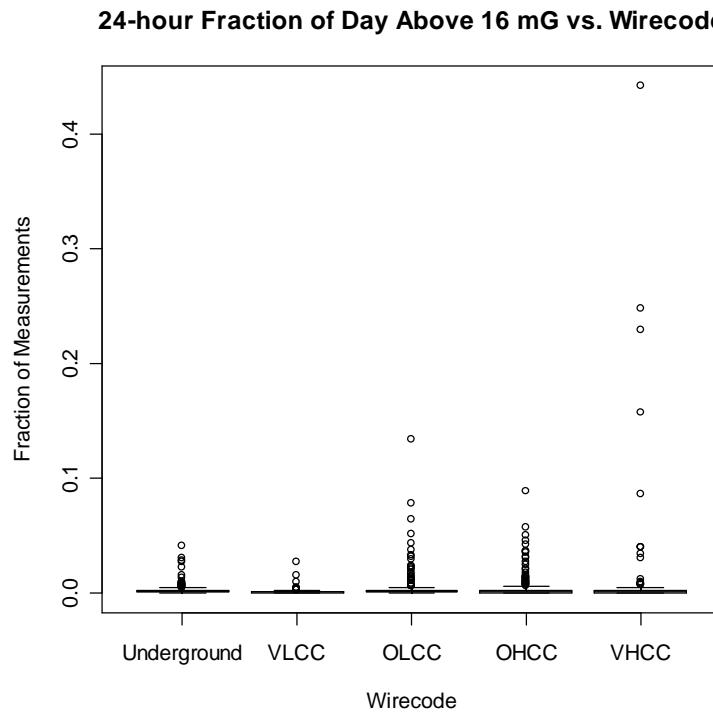


Table 3.10.10: Summary measures for 24-hour Fraction of Measurements Exceeding 16 mG by Wirecode Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	0.0019	0.0047	NA	0.0005	0.0071	0.0272	0.0406
VLCC	62	0.0013	0.0038	NA	0.0003	0.0041	0.0187	0.0257
OLCC	257	0.0037	0.0121	NA	0.0006	0.0197	0.0564	0.1335
OHCC	282	0.0035	0.0093	NA	0.0005	0.0167	0.0457	0.0880
VHCC	133	0.0111	0.0501	NA	0.0003	0.0386	0.2418	0.4419

Figure 3.10.11: Distribution of 24-hour 90th Percentile by Wire-code Category

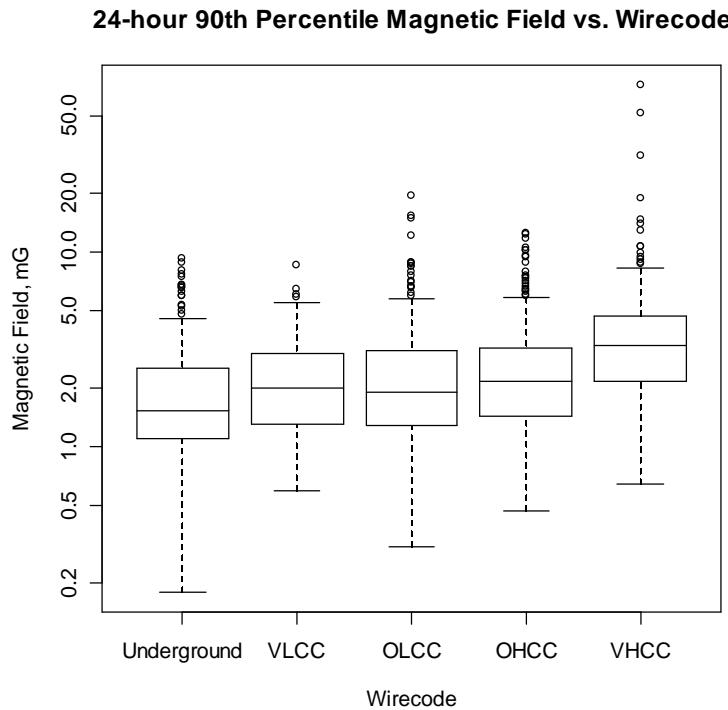


Table 3.10.11: Summary measures for 24-hour 90th Percentile by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	2.11	1.64	1.65	1.54	5.92	7.93	9.29
VLCC	62	2.47	1.65	2.02	2.01	5.84	7.27	8.57
OLCC	257	2.61	2.36	2.01	1.90	6.67	13.27	19.30
OHCC	282	2.76	2.06	2.23	2.18	6.79	10.73	12.50
VHCC	133	5.10	8.01	3.45	3.29	11.57	45.08	70.90

Figure 3.10.12: Distribution of 24-hour 95th Percentile by Wire-code Category

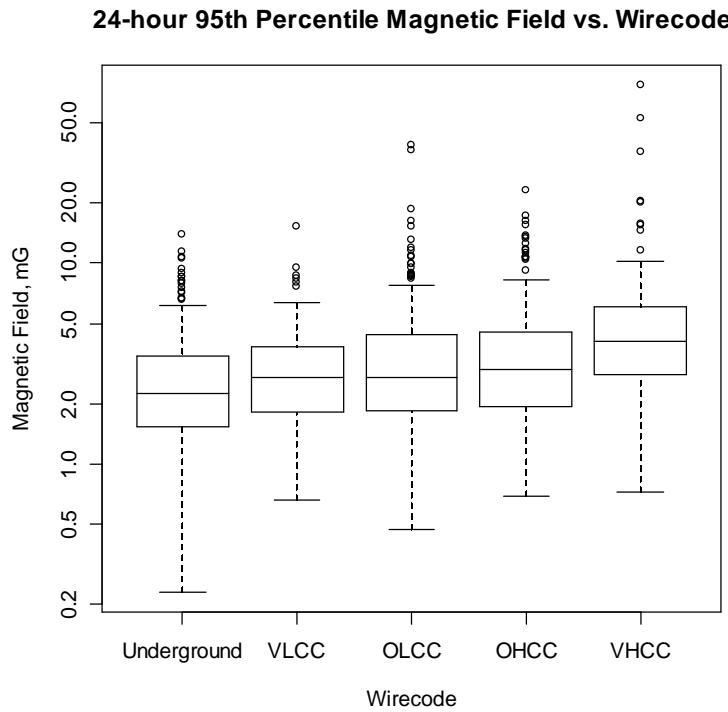


Table 3.10.12: Summary measures for 24-hour 95th Percentile by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	2.89	2.12	2.34	2.24	7.42	10.62	13.90
VLCC	62	3.36	2.55	2.70	2.70	8.35	11.66	15.10
OLCC	257	3.78	4.03	2.87	2.68	9.01	17.16	38.90
OHCC	282	3.79	2.97	3.05	2.96	10.49	15.61	22.90
VHCC	133	6.08	8.56	4.33	4.06	14.90	47.05	76.50

Figure 3.10.13: Distribution of 24-hour 99th Percentile by Wire-code Category

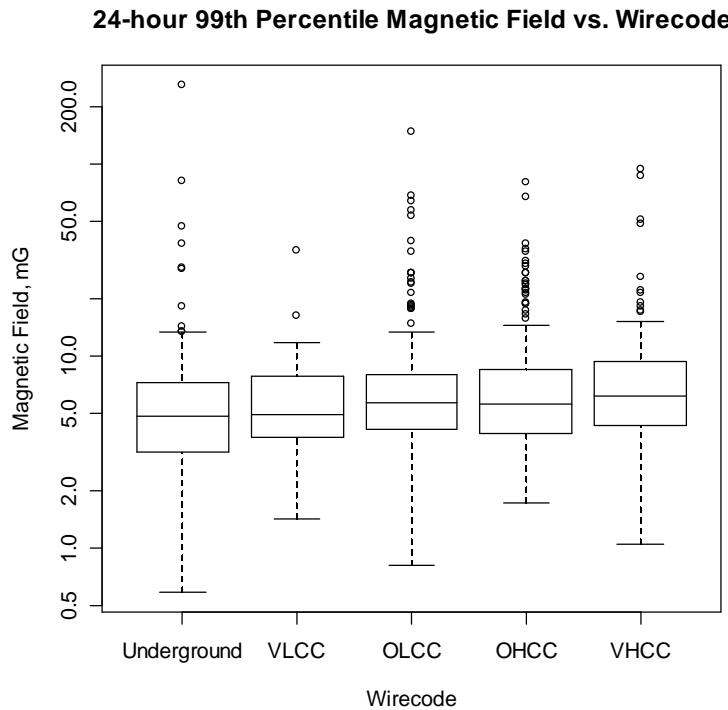


Table 3.10.13: Summary measures for 24-hour 99th Percentile by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	7.36	17.96	4.95	4.86	12.09	44.95	254.40
VLCC	62	6.21	4.84	5.12	4.91	11.60	23.67	35.50
OLCC	257	8.34	12.11	6.02	5.67	21.62	60.03	146.50
OHCC	282	7.99	8.21	6.17	5.58	22.30	36.56	79.30
VHCC	133	9.15	12.11	6.69	6.13	19.78	75.04	94.10

Figure 3.10.14: Distribution of 24-hour Maximum by Wire-code Category

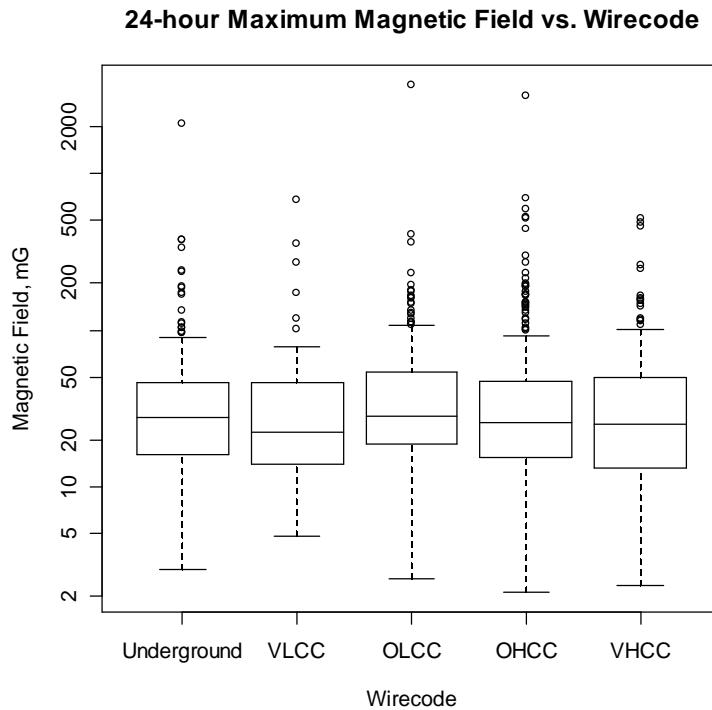


Table 3.10.14: Summary measures for 24-hour Maximum by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	226	51.71	144.77	29.57	27.90	110.75	363.20	2075.20
VLCC	62	51.41	100.01	27.19	22.20	167.53	482.14	683.20
OLCC	257	59.34	228.13	32.42	28.50	128.66	286.53	3620.80
OHCC	282	61.20	200.54	29.71	25.60	175.15	533.38	3124.80
VHCC	133	49.98	79.73	27.88	25.10	155.42	474.43	516.80

Figure 3.10.15: Distribution of 24-hour TWA by Transformer Wiring

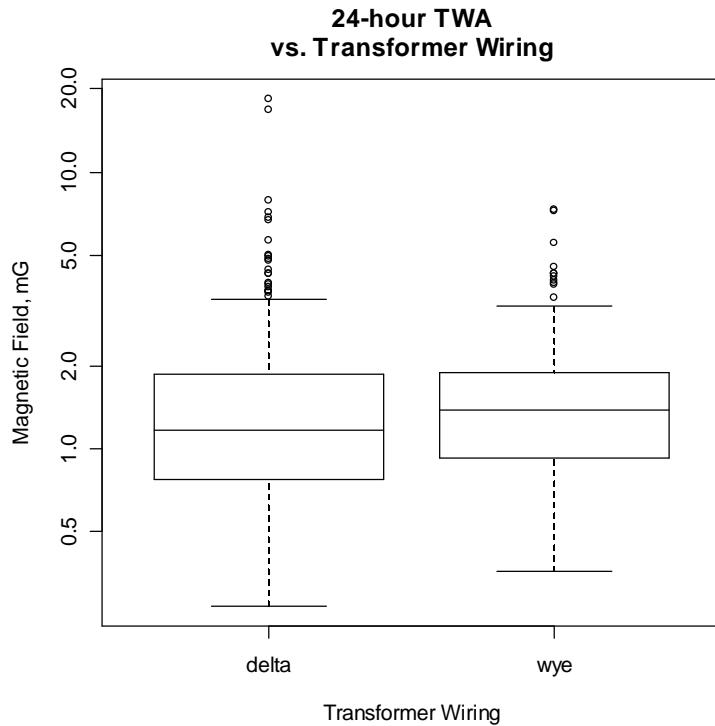


Table 3.10.15: Summary measures for 24-hour TWA by Transformer Wiring

	n	mean	std.dev	geo.means	p50	p95	p99	max
delta	335	1.58	1.67	1.22	1.17	3.73	7.05	18.23
wye	243	1.57	0.99	1.35	1.37	3.25	5.13	7.28

Figure 3.10.16: Distribution of 24-hour Harmonic TWA by Transformer Wiring

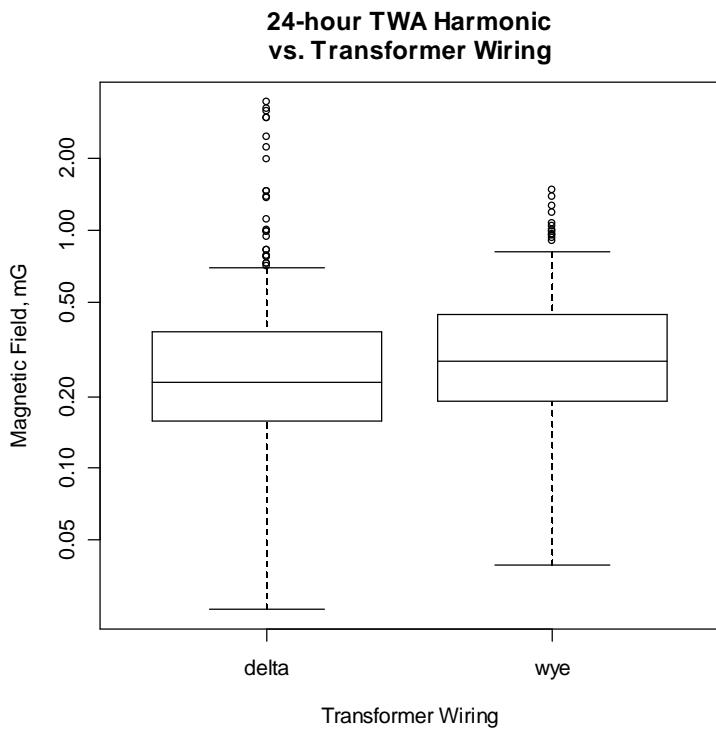


Table 3.10.16: Summary measures for 24-hour Harmonic TWA by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	335	0.35	0.45	0.24	0.23	0.86	2.96	3.43
wye	243	0.35	0.24	0.28	0.28	0.81	1.23	1.47

Figure 3.10.17: Distribution of 24-hour Rate-of-Change Metric (RCM) by Transformer Wiring

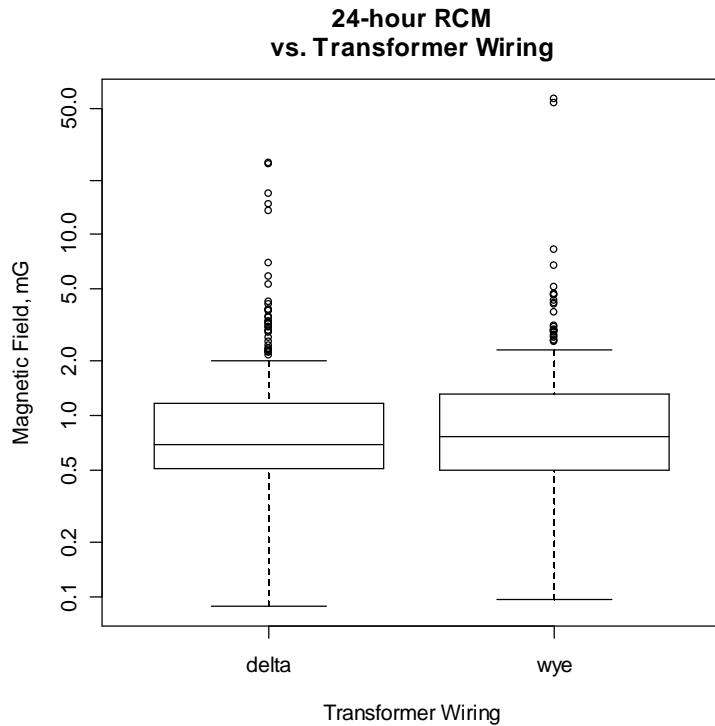


Table 3.10.17: Summary measures for 24-hour Rate-of-Change Metric (RCM) by Transformer Wiring

	n	mean	std.dev	geo.me an	p50	p95	p99	max
delt a	335	1.24	2.41	0.78	0.69	3.26	14.13	24.70
wye	243	1.56	4.95	0.86	0.76	3.10	7.55	55.49

Figure 3.10.18: Distribution of 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Transformer Wiring

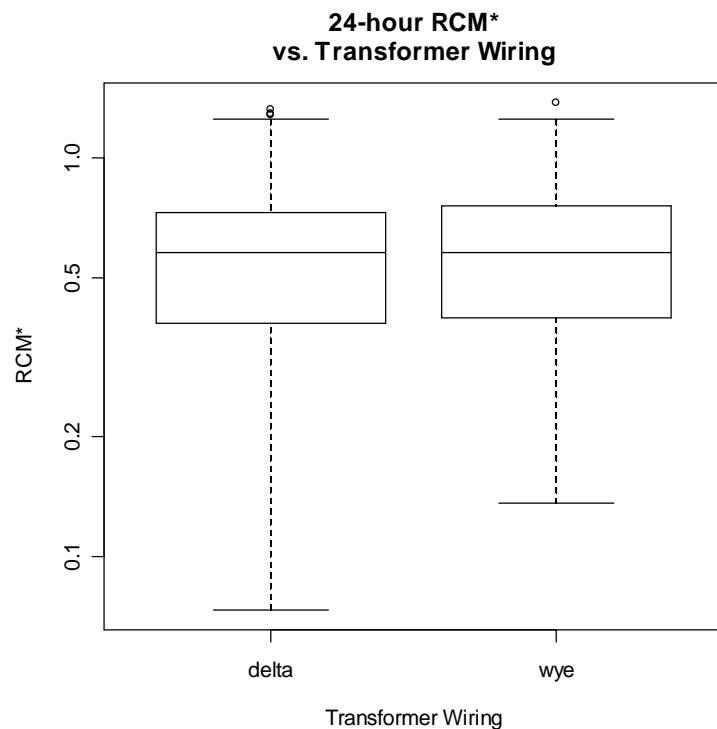


Table 3.10.18: Summary measures for 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delta	335	0.582	0.238	0.527	0.579	0.978	1.246	1.322
wye	243	0.594	0.249	0.538	0.581	1.056	1.220	1.370

Figure 3.10.19: Distribution of 24-hour Sudden Field Changes Exceeding 2.5 mG by Transformer Wiring

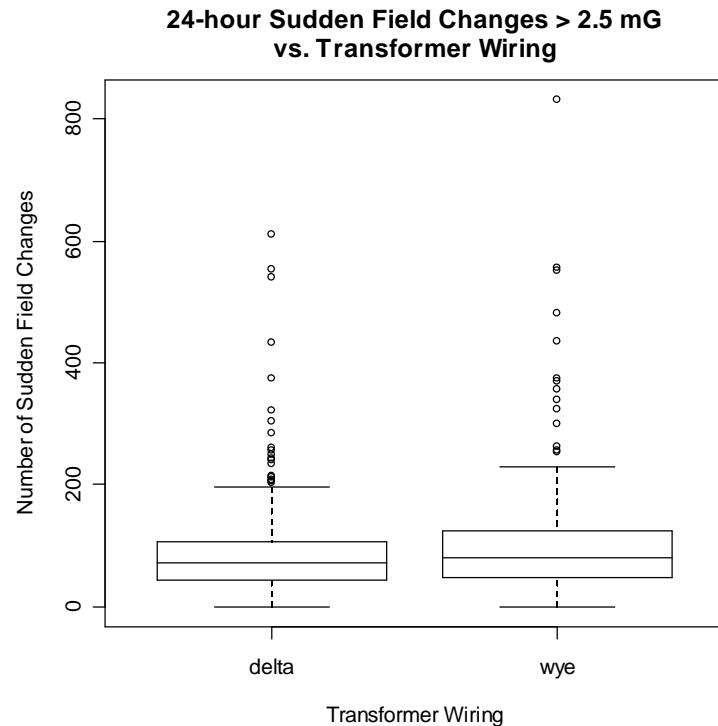


Table 3.10.19: Summary measures for 24-hour Sudden Field Changes Exceeding 2.5 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	335	86	75	NA	71	205	413	609
wye	243	102	96	NA	79	256	522	830

Figure 3.10.20: Distribution of 24-hour Sudden Field Changes Exceeding 5 mG by Transformer Wiring

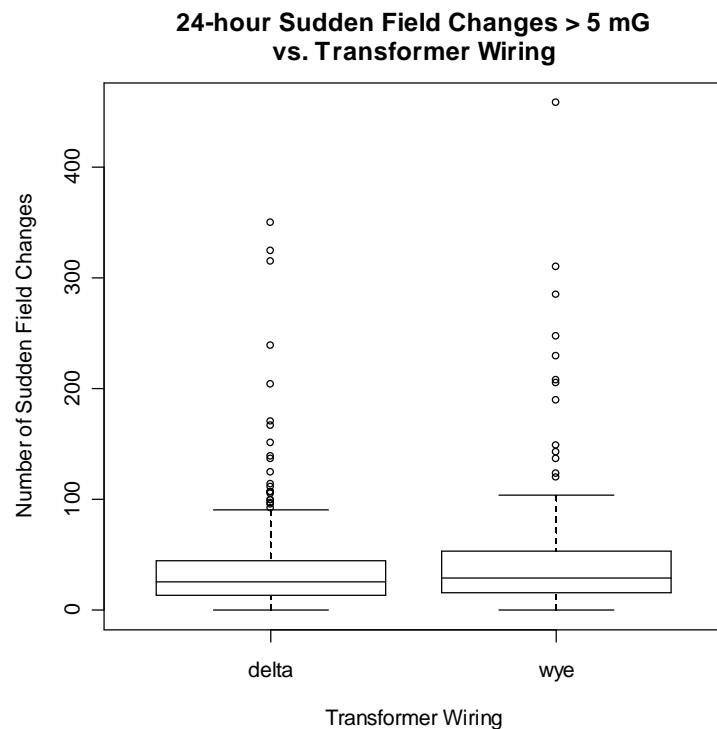


Table 3.10.20: Summary measures for 24-hour Sudden Field Changes Exceeding 5 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	335	36	42	NA	25	101	227	350
wye	243	43	52	NA	28	117	269	458

Figure 3.10.21: Distribution of 24-hour Longest Period Exceeding 4 mG by Transformer Wiring

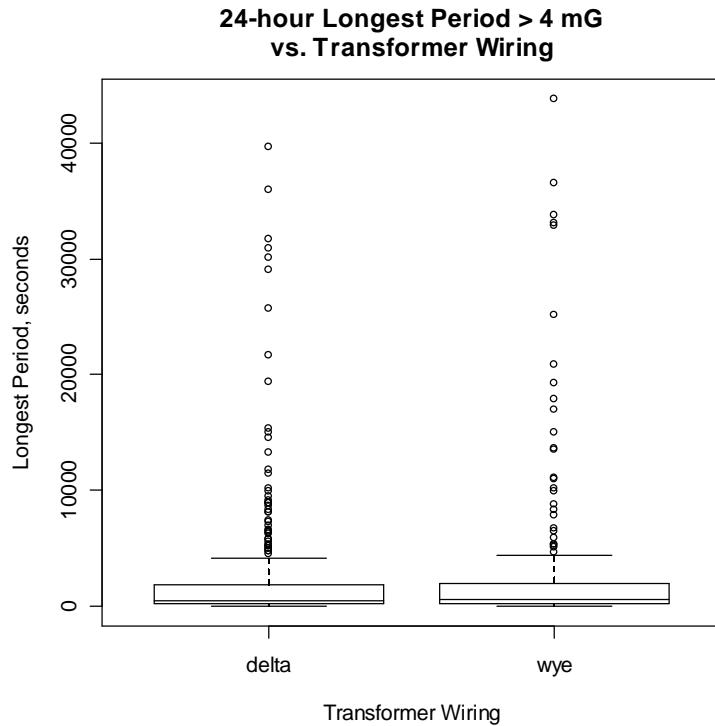


Table 3.10.21: Summary measures for 24-hour Longest Period Exceeding 4 mG by Transformer Wiring

	n	mean	std.dev	geo.me an	p50	p95	p99	max
delt a	335	2271	5292	NA	440	9549	30612	39680
wye	243	2511	6066	NA	500	13201	33455	43760

Figure 3.10.22: Distribution of 24-hour Longest Period Exceeding 16 mG by Transformer Wiring

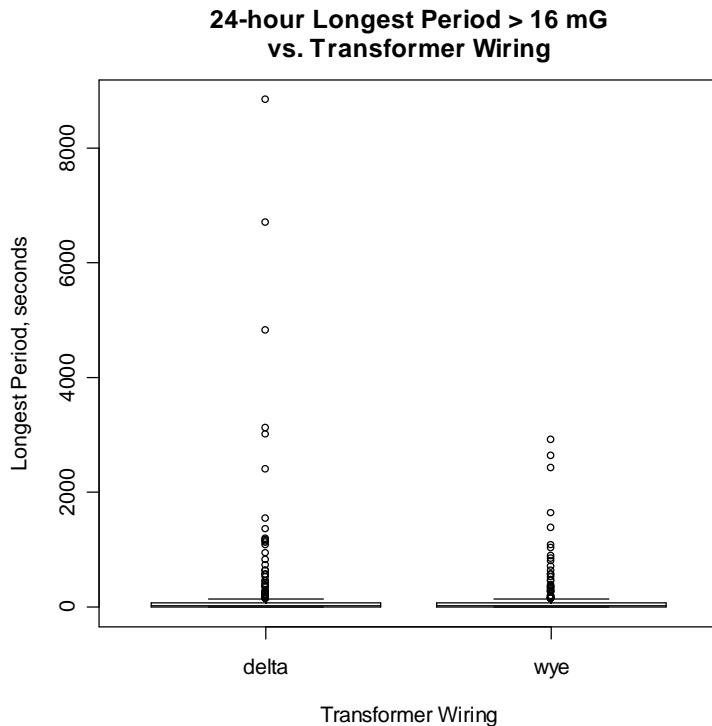


Table 3.10.22: Summary measures for 24-hour Longest Period Exceeding 16 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	335	165	729	NA	20	623	3069	8840
wye	243	115	352	NA	20	540	2078	2910

Figure 3.10.23: Distribution of 24-hour Fraction of Measurements Exceeding 4 mG by Transformer Wiring

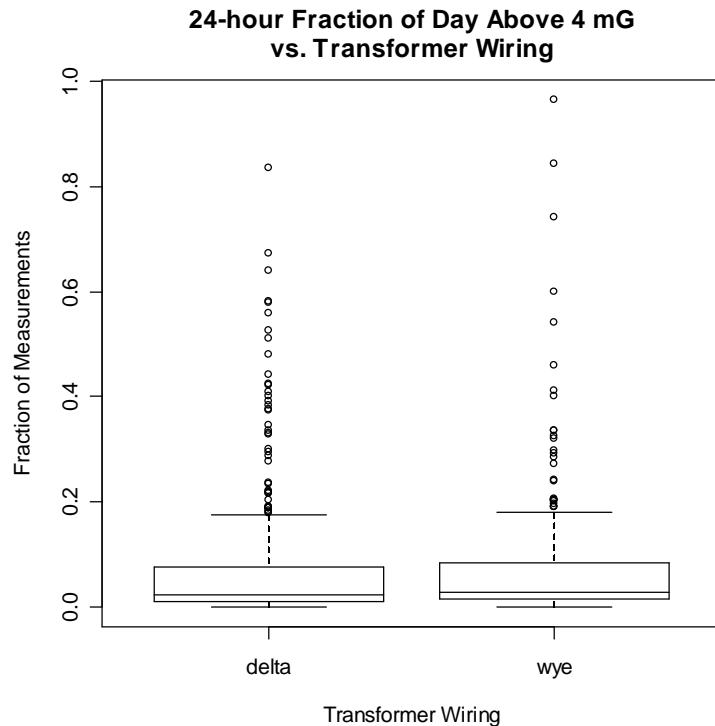


Table 3.10.23: Summary measures for 24-hour Fraction of Measurements Exceeding 4 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	335	0.0734	0.1239	NA	0.0228	0.3729	0.5810	0.8340
wye	243	0.0765	0.1271	NA	0.0277	0.2952	0.6817	0.9638

Figure 3.10.24: Distribution of 24-hour Fraction of Measurements Exceeding 16 mG by Transformer Wiring

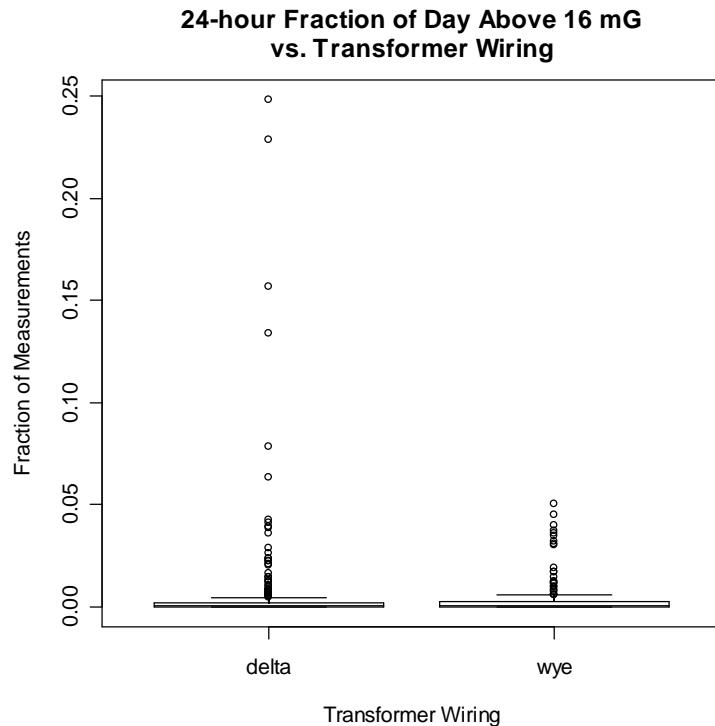


Table 3.10.24: Summary measures for 24-hour Fraction of Measurements Exceeding 16 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	335	0.0051	0.0227	NA	0.0004	0.0212	0.1147	0.2480
wye	243	0.0030	0.0074	NA	0.0005	0.0137	0.0385	0.0501

Figure 3.10.25: Distribution of 24-hour 90th Percentile by Transformer Wiring

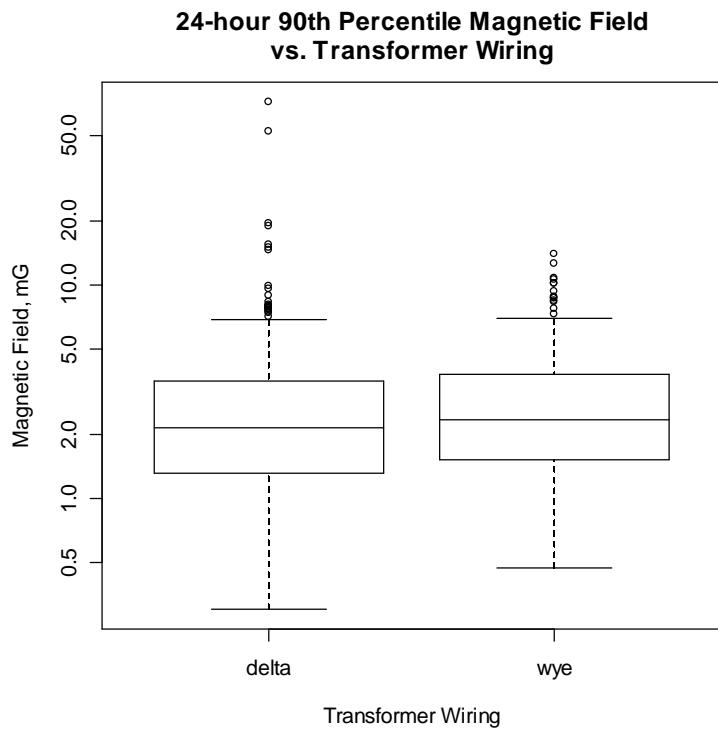


Table 3.10.25: Summary measures for 24-hour 90th Percentile by Transformer Wiring

	n	mean	std.dev	geo.means	p50	p95	p99	max
delta	335	3.16	5.20	2.20	2.13	7.59	17.54	70.90
wye	243	3.00	2.20	2.43	2.33	7.61	10.62	13.90

Figure 3.10.26: Distribution of 24-hour 95th Percentile by Transformer Wiring

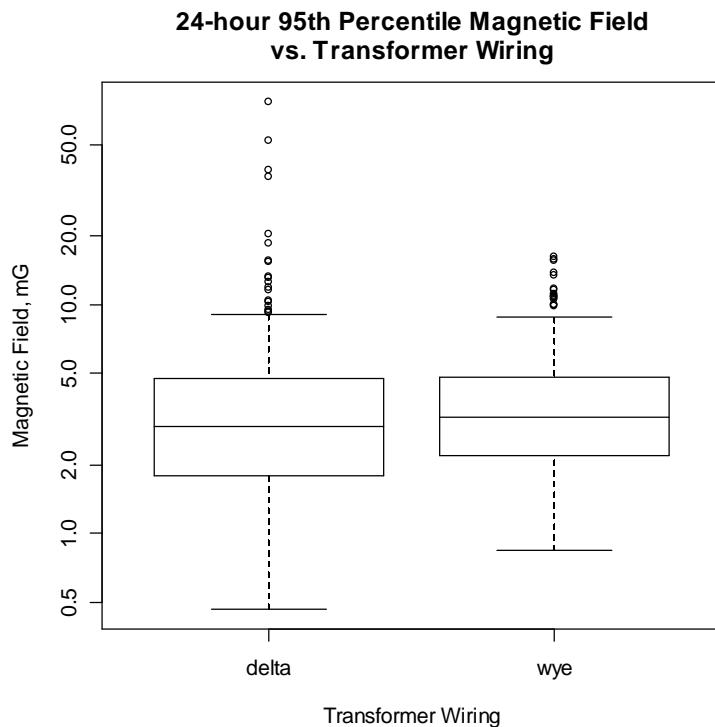


Table 3.10.26: Summary measures for 24-hour 95th Percentile by Transformer Wiring

	n	mean	std.dev	geo.means	p50	p95	p99	max
delta	335	4.25	6.12	3.02	2.94	9.34	30.99	76.50
wye	243	4.04	2.79	3.34	3.22	10.45	14.77	16.10

Figure 3.10.27: Distribution of 24-hour 99th Percentile by Transformer Wiring

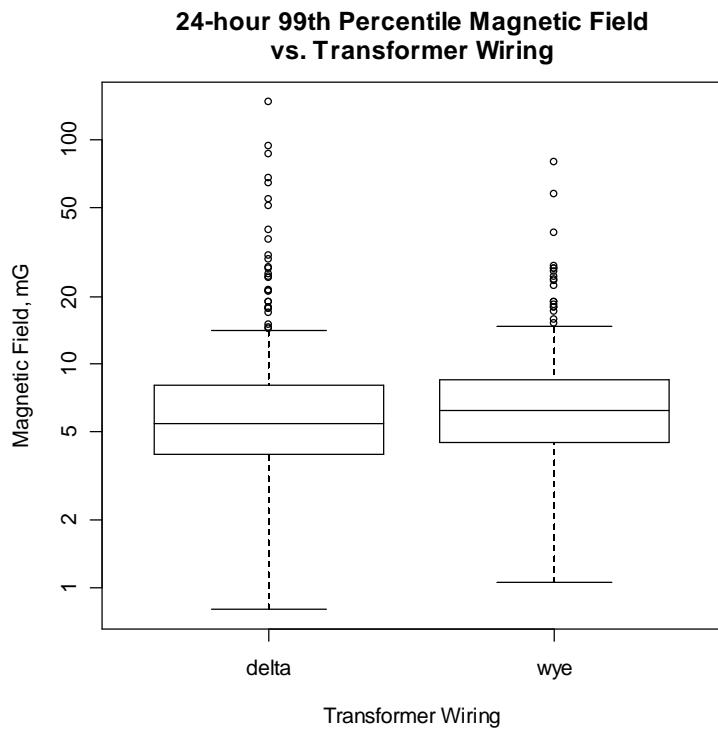


Table 3.10.27: Summary measures for 24-hour 99th Percentile by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delta	335	8.37	12.55	5.91	5.43	21.16	65.88	146.50
wye	243	7.91	7.56	6.38	6.19	18.66	33.71	79.30

Figure 3.10.28: Distribution of 24-hour Maximum by Transformer Wiring

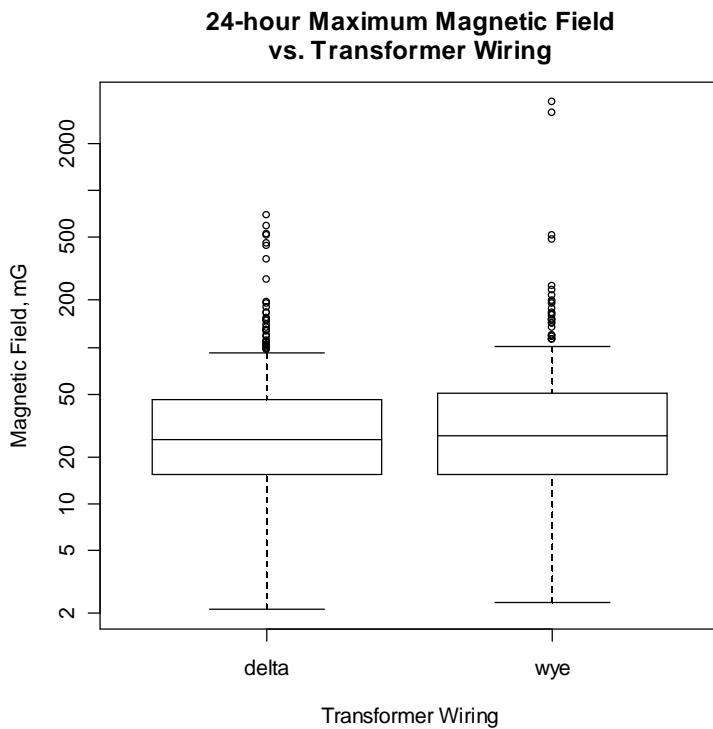


Table 3.10.28: Summary measures for 24-hour Maximum by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	335	47.88	78.25	28.47	25.50	140.72	497.22	689.60
wye	243	74.30	307.84	31.31	27.10	162.32	498.30	3620.80

Figure 3.10.29: Distribution of 24-hour TWA by Block Type

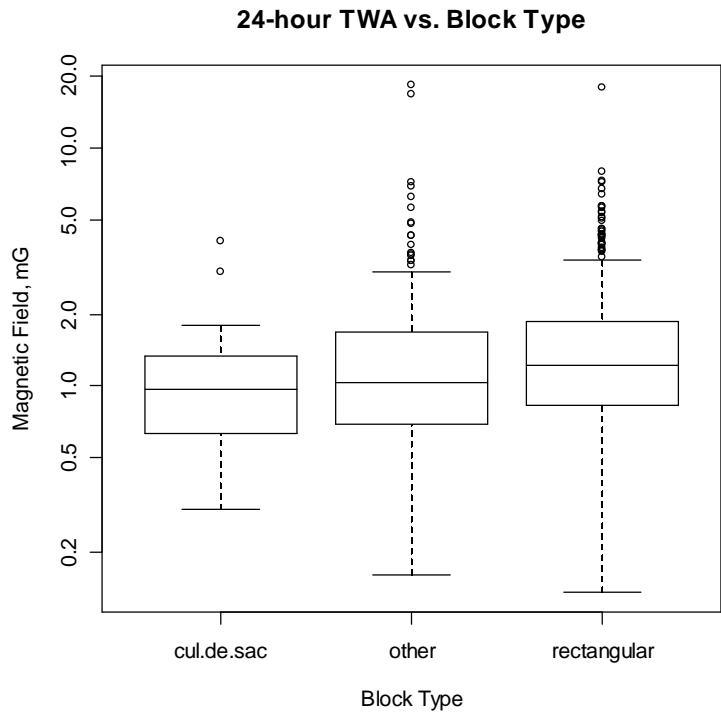


Table 3.10.29: Summary measures for 24-hour TWA by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	1.09	0.76	0.91	0.97	2.33	3.72	4.05
other	336	1.42	1.59	1.10	1.03	3.06	6.63	18.23
rectangular	580	1.55	1.28	1.26	1.22	3.82	5.83	17.92

Figure 3.10.30: Distribution of 24-hour Harmonic TWA by Block Type

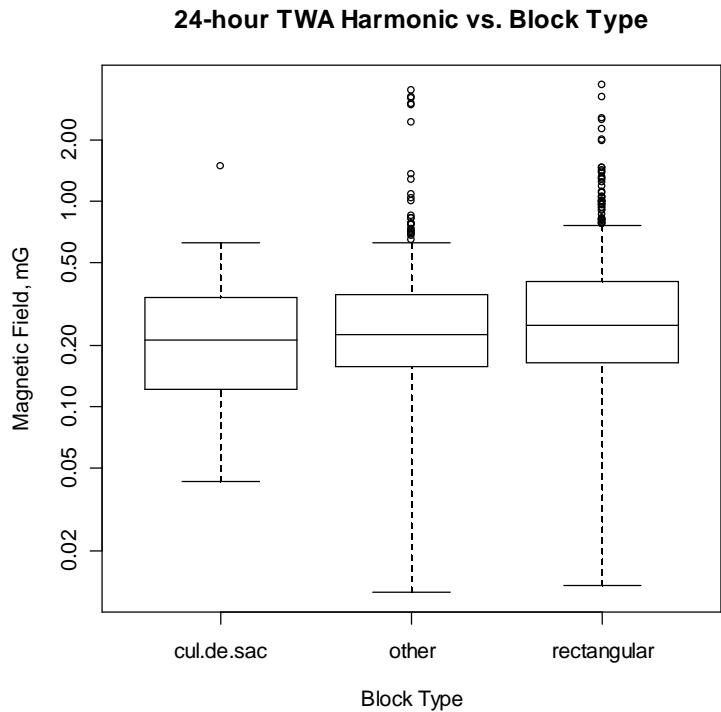


Table 3.10.30: Summary measures for 24-hour Harmonic TWA by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	0.28	0.26	0.21	0.21	0.59	1.21	1.47
other	336	0.33	0.42	0.24	0.23	0.76	2.96	3.43
rectangular	580	0.35	0.35	0.26	0.25	0.95	1.97	3.64

Figure 3.10.31: Distribution of 24-hour Rate-of-Change Metric (RCM) by Block Type

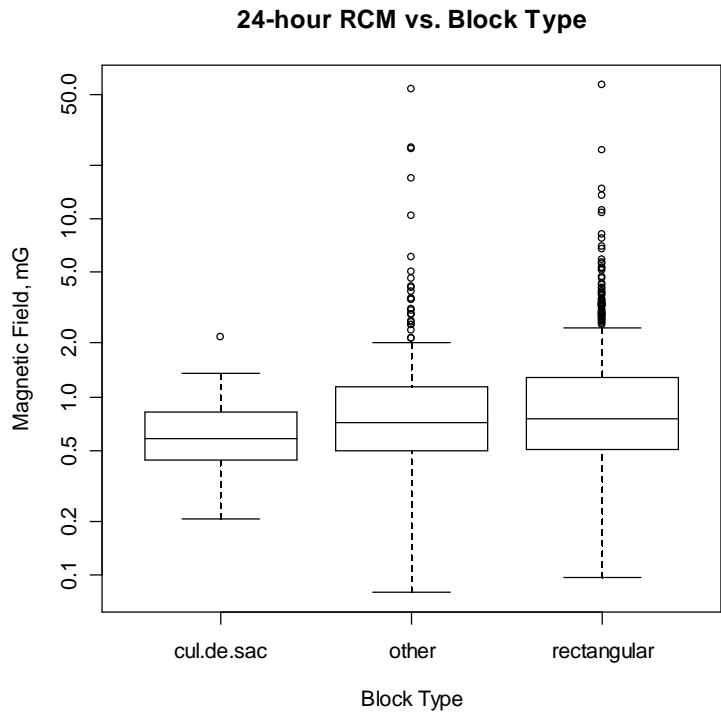


Table 3.10.31: Summary measures for 24-hour Rate-of-Change Metric (RCM) by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	0.67	0.38	0.60	0.58	1.31	1.92	2.17
other	336	1.31	3.61	0.79	0.71	2.91	14.57	53.55
rectangular	580	1.31	2.83	0.84	0.75	3.46	8.70	55.49

Figure 3.10.32: Distribution of 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Block Type

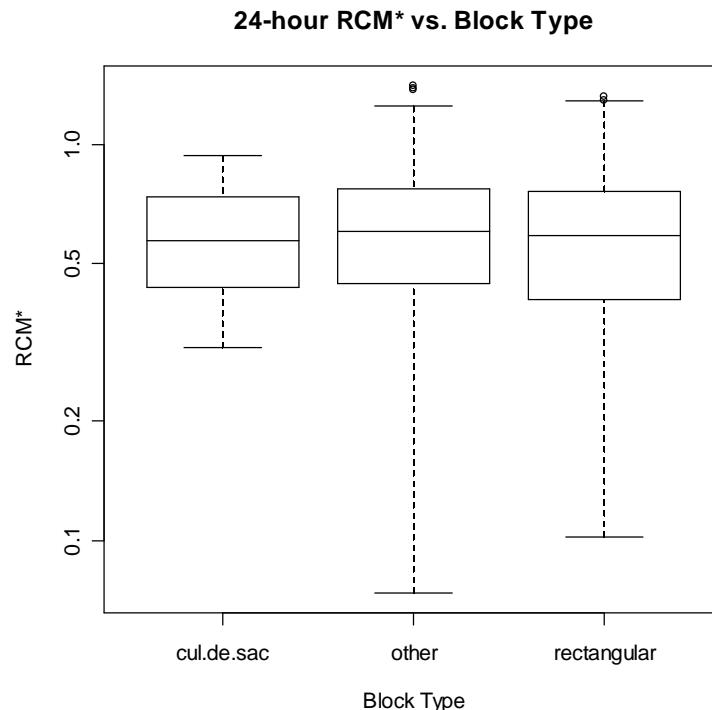


Table 3.10.32: Summary measures for 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	0.582	0.171	0.557	0.570	0.839	0.909	0.940
other	336	0.611	0.239	0.558	0.606	0.993	1.234	1.400
rectangula r	580	0.600	0.242	0.547	0.589	1.006	1.238	1.322

Figure 3.10.33: Distribution of 24-hour Sudden Field Changes Exceeding 2.5 mG by Block Type

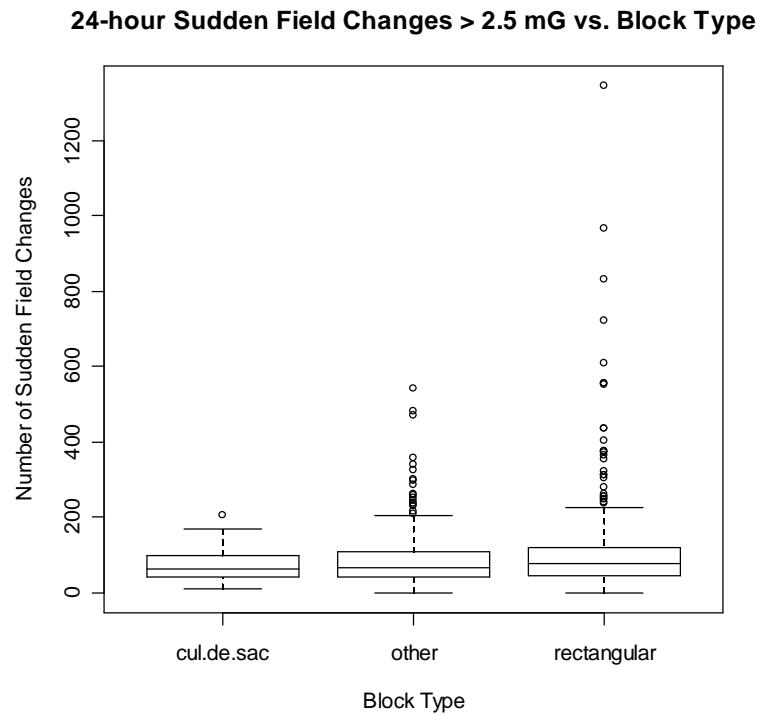


Table 3.10.33: Summary measures for 24-hour Sudden Field Changes Exceeding 2.5 mG by Block Type

	n	mean	std.dev	geo.means	p50	p95	p99	max
cul.de.sac	32	70	46	56	63	151	193	204
other	336	84	71	NA	65	209	349	539
rectangular	580	98	107	NA	77	222	553	1343

Figure 3.10.34: Distribution of 24-hour Sudden Field Changes Exceeding 5 mG by Block Type

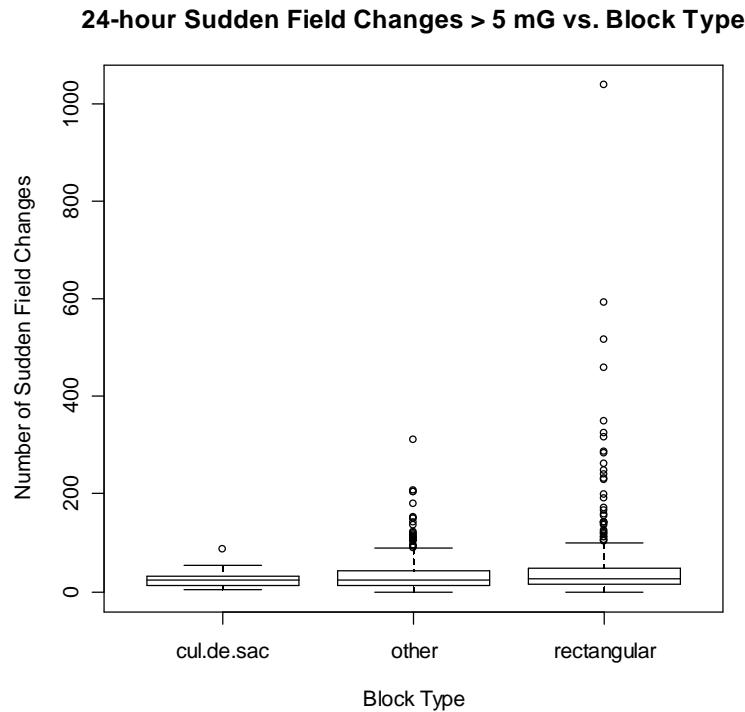


Table 3.10.34: Summary measures for 24-hour Sudden Field Changes Exceeding 5 mG by Block Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
cul.de.sac	32	23	17	18	23	46	76	86
other	336	35	37	NA	23	106	196	310
rectangular	580	43	70	NA	27	110	317	1037

Figure 3.10.35: Distribution of 24-hour Longest Period Exceeding 4 mG by Block Type

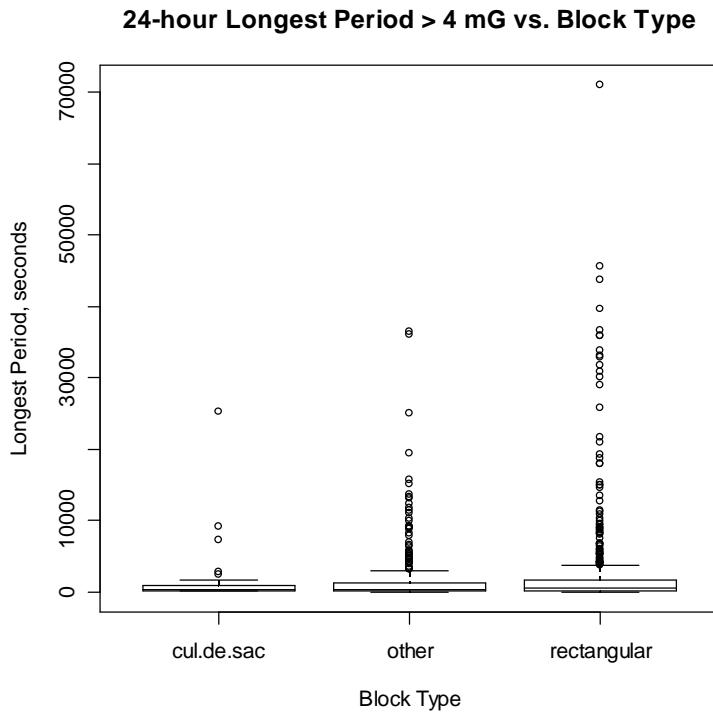


Table 3.10.35: Summary measures for 24-hour Longest Period Exceeding 4 mG by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	1753	4706	349	300	8074	20134	25100
other	336	1701	4101	NA	280	8950	18042	36380
rectangular	580	2403	6568	NA	450	10718	35789	70940

Figure 3.10.36: Distribution of 24-hour Longest Period Exceeding 16 mG by Block Type

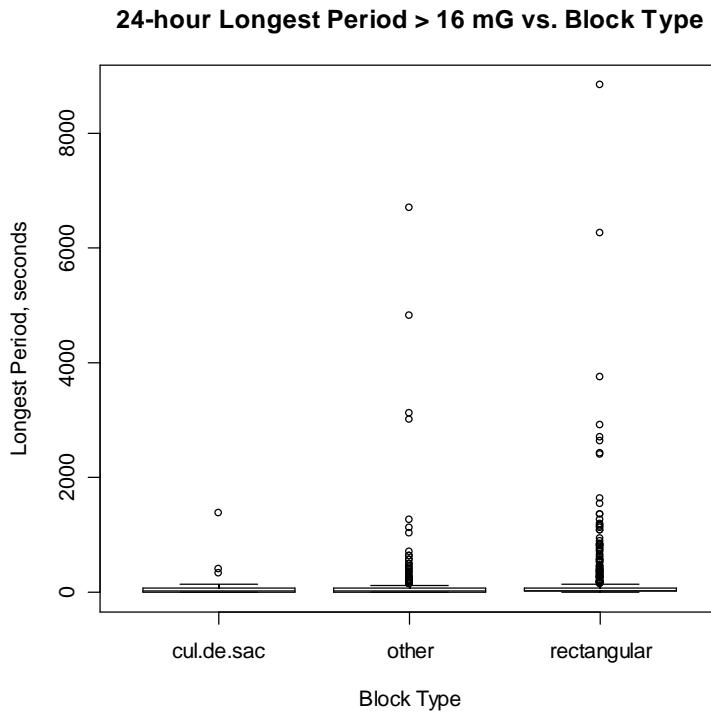


Table 3.10.36: Summary measures for 24-hour Longest Period Exceeding 16 mG by Block Type

	n	mean	std.dev	geo.me an	p50	p95	P99	max
cul.de.sac	32	83	249	NA	10	352	1059	1360
other	336	111	520	NA	15	365	2378	6710
rectangular	580	143	566	NA	20	691	2454	8840

Figure 3.10.37: Distribution of 24-hour Fraction of Measurements Exceeding 4 mG by Block Type

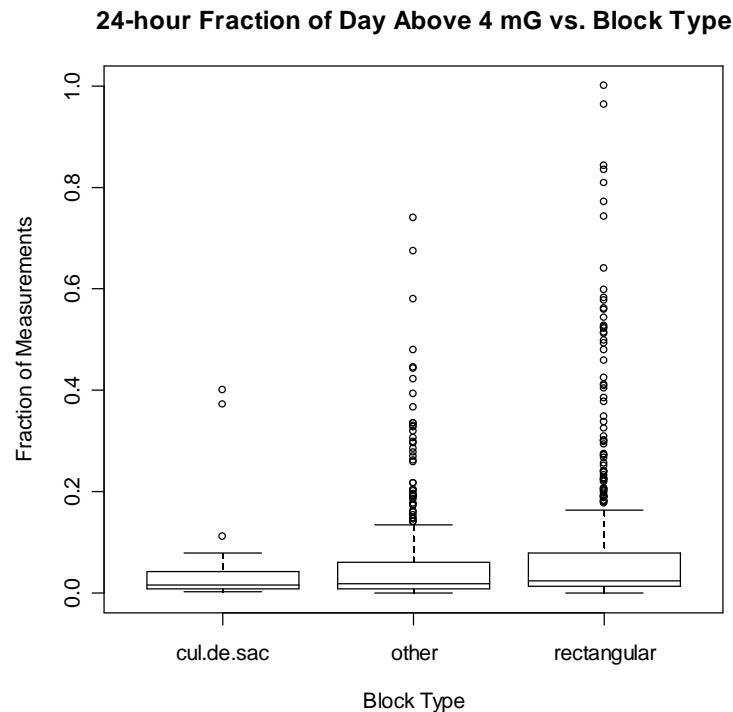


Table 3.10.37: Summary measures for 24-hour Fraction of Measurements Exceeding 4 mG by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	0.0447	0.0927	0.0152	0.0134	0.2269	0.3913	0.4001
other	336	0.0598	0.1029	NA	0.0175	0.2853	0.4661	0.7392
rectangula r	580	0.0760	0.1376	NA	0.0237	0.3471	0.7486	0.9994

Figure 3.10.38: Distribution of 24-hour Fraction of Measurements Exceeding 16 mG by Block Type

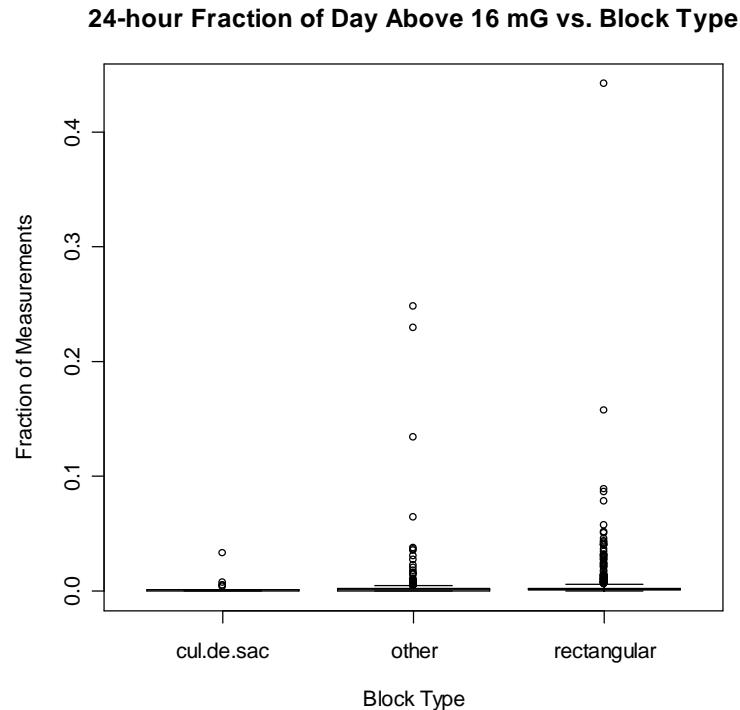


Table 3.10.38: Summary measures for 24-hour Fraction of Measurements Exceeding 16 mG by Block Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
cul.de.sac	32	0.0017	0.0057	NA	0.0001	0.0053	0.0239	0.0317
other	336	0.0038	0.0204	NA	0.0003	0.0087	0.0542	0.2480
rectangula r	580	0.0044	0.0215	NA	0.0006	0.0210	0.0523	0.4419

Figure 3.10.39: Distribution of 24-hour 90th Percentile by Block Type

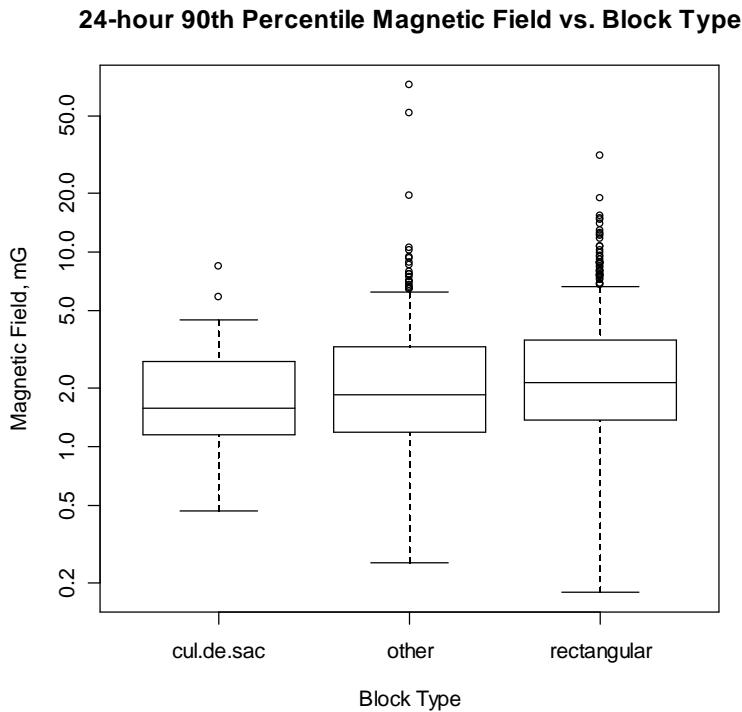


Table 3.10.39: Summary measures for 24-hour 90th Percentile by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	2.10	1.66	1.66	1.58	5.10	7.56	8.33
other	336	2.87	5.02	2.00	1.86	6.65	10.36	70.90
rectangular	580	2.92	2.66	2.24	2.14	7.82	13.08	31.00

Figure 3.10.40: Distribution of 24-hour 95th Percentile by Block Type

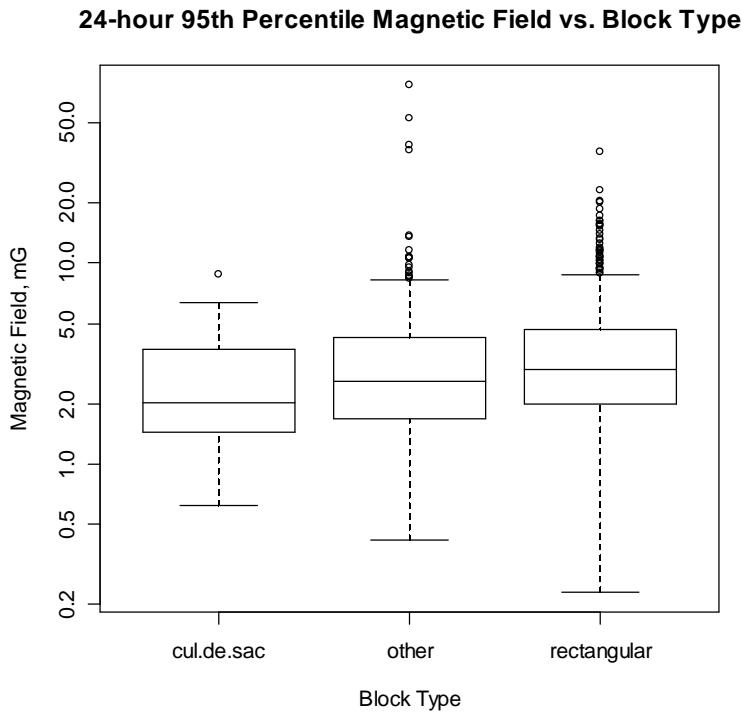


Table 3.10.40: Summary measures for 24-hour 95th Percentile by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	2.70	1.81	2.23	2.01	5.89	8.05	8.81
other	336	3.81	5.91	2.74	2.59	8.52	28.54	76.50
rectangular	580	3.96	3.37	3.10	2.94	10.21	16.35	35.90

Figure 3.10.41: Distribution of 24-hour 99th Percentile by Block Type

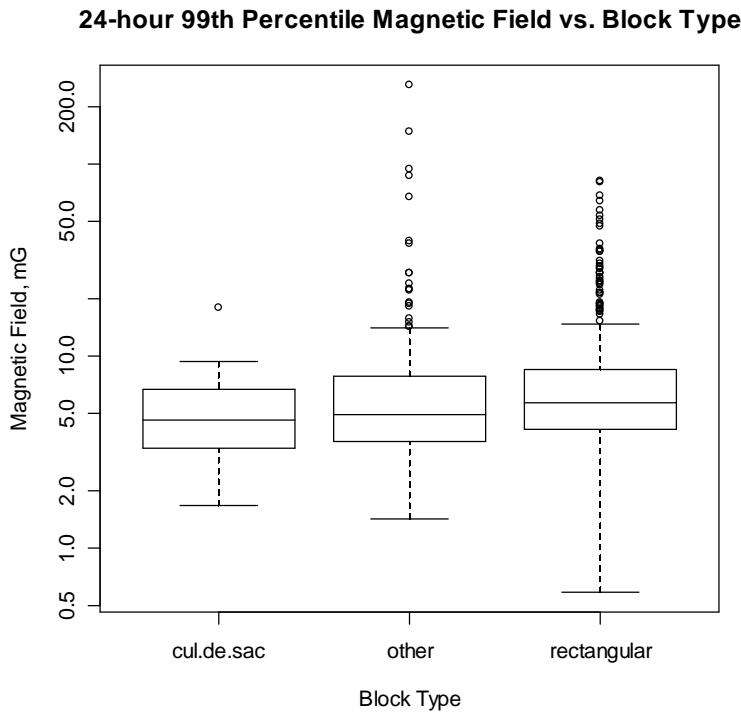


Table 3.10.41: Summary measures for 24-hour 99th Percentile by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	5.31	3.07	4.66	4.65	9.09	15.11	17.70
other	336	8.13	17.73	5.46	4.96	15.10	79.71	254.40
rectangular	580	8.05	8.74	6.10	5.75	21.97	51.37	80.70

Figure 3.10.42: Distribution of 24-hour Maximum by Block Type

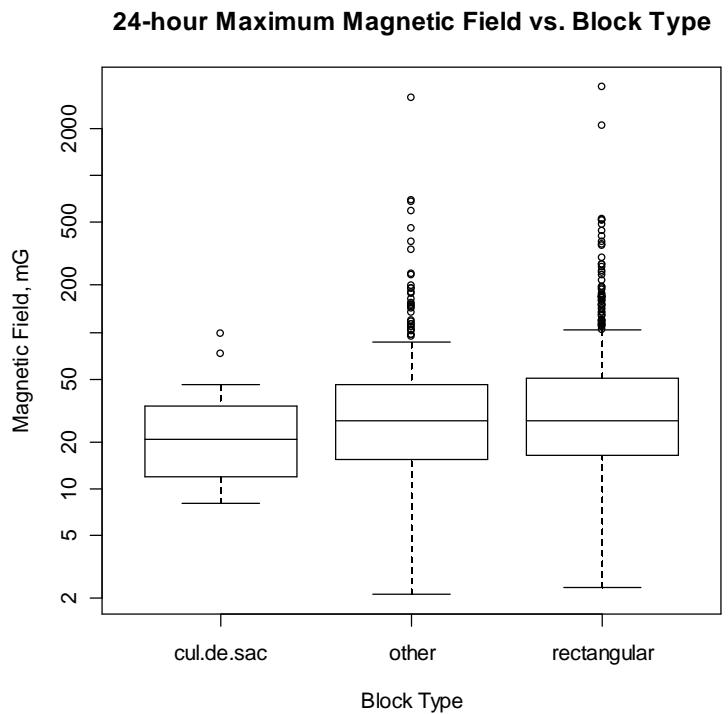


Table 3.10.42: Summary measures for 24-hour Maximum by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	32	25.84	19.25	21.10	20.60	58.03	89.52	96.90
other	336	55.90	184.45	29.26	27.00	146.65	544.48	3124.80
rectangular	580	58.51	182.76	31.04	27.10	165.13	446.21	3620.80

Figure 3.10.43: Distribution of 24-hour TWA by Street Type

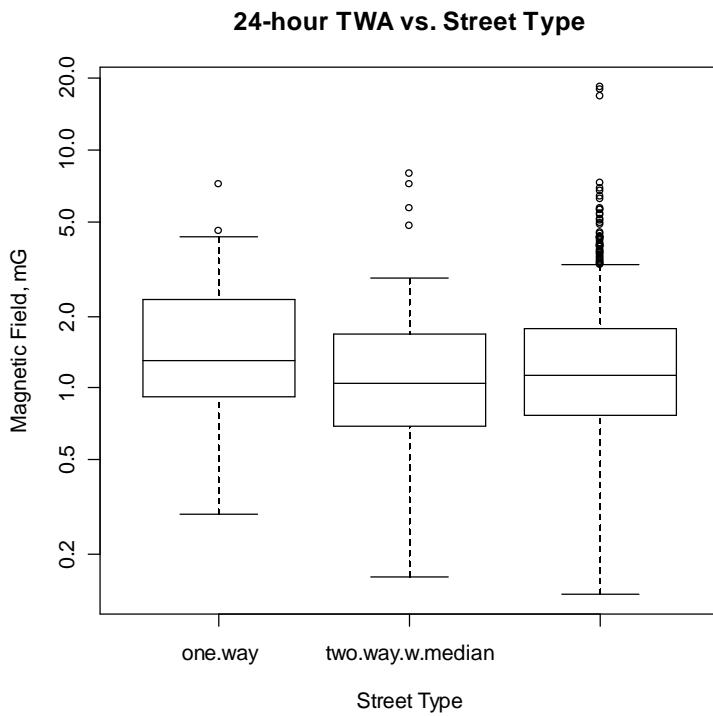


Table 3.10.43: Summary measures for 24-hour TWA by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	1.69	1.21	1.39	1.30	3.85	5.93	7.15
two.way.w.media n	53	1.54	1.56	1.14	1.04	5.15	7.54	7.92
two.way.wo.medi an	853	1.48	1.38	1.18	1.13	3.39	5.63	18.23

Figure 3.10.44: Distribution of 24-hour Harmonic TWA by Street Type

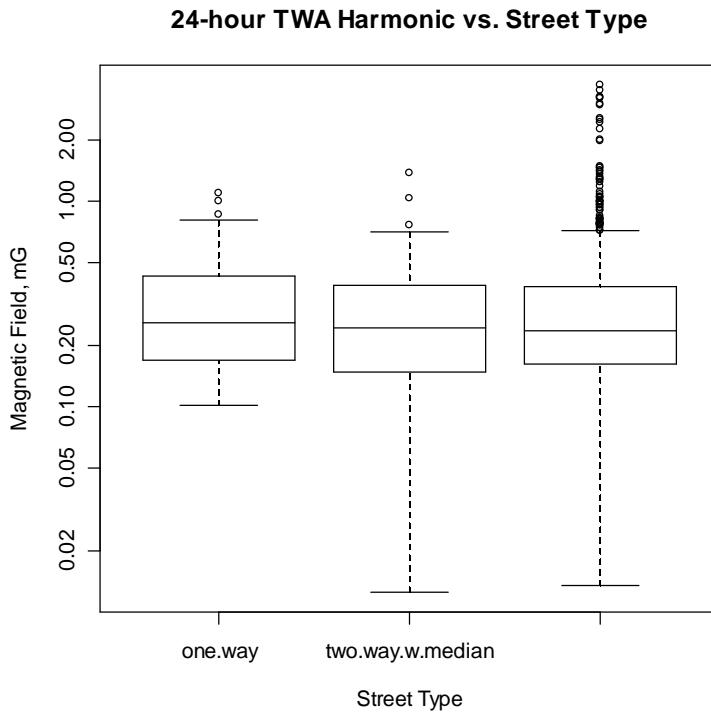


Table 3.10.44: Summary measures for 24-hour Harmonic TWA by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	0.34	0.24	0.28	0.26	0.84	1.05	1.10
two.way.w.media n	53	0.31	0.25	0.24	0.24	0.73	1.20	1.37
two.way.wo.medi an	853	0.34	0.39	0.25	0.23	0.84	2.45	3.64

Figure 3.10.45: Distribution of 24-hour Rate-of-Change Metric (RCM) by Street Type

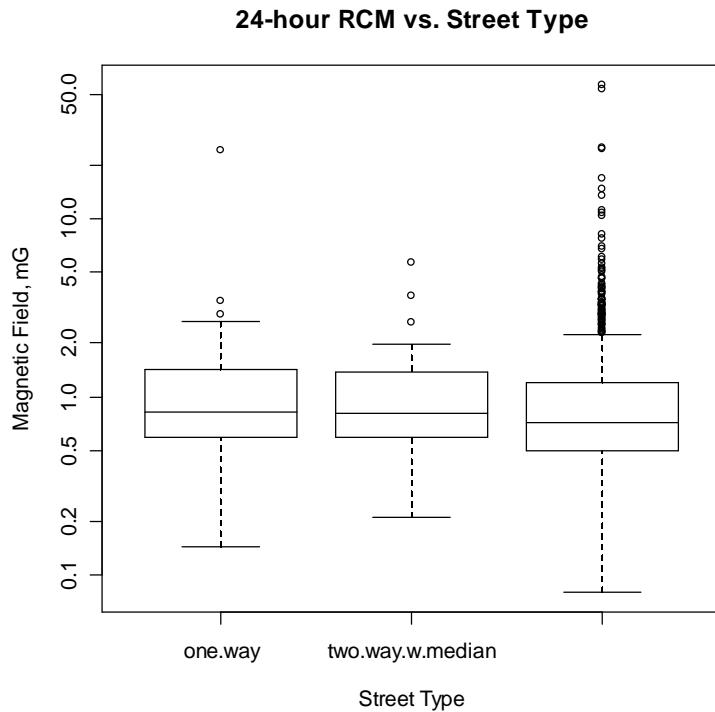


Table 3.10.45: Summary measures for 24-hour Rate-of-Change Metric (RCM) by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	1.53	3.43	0.87	0.83	2.82	14.47	24.24
two.way.w.media n	53	1.08	0.90	0.87	0.81	2.24	4.66	5.70
two.way.wo.medi an	853	1.29	3.15	0.81	0.72	3.31	10.49	55.49

Figure 3.10.46: Distribution of 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Street Type

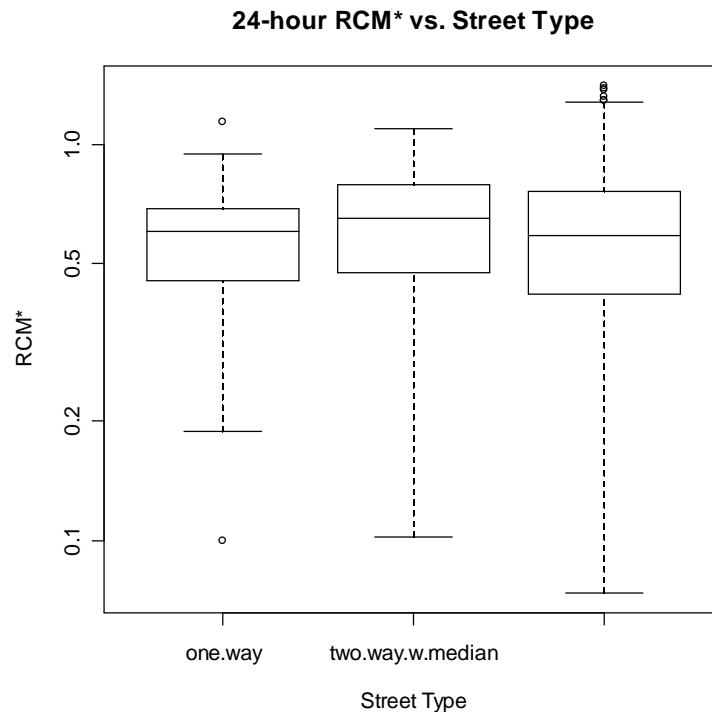


Table 3.10.46: Summary measures for 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Street Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
one.way	48	0.563	0.208	0.517	0.603	0.841	1.047	1.137
two.way.w.media n	53	0.643	0.211	0.601	0.650	0.953	1.044	1.097
two.way.wo.media n	853	0.603	0.242	0.549	0.591	1.005	1.249	1.400

Figure 3.10.47: Distribution of 24-hour Sudden Field Changes Exceeding 2.5 mG by Street Type

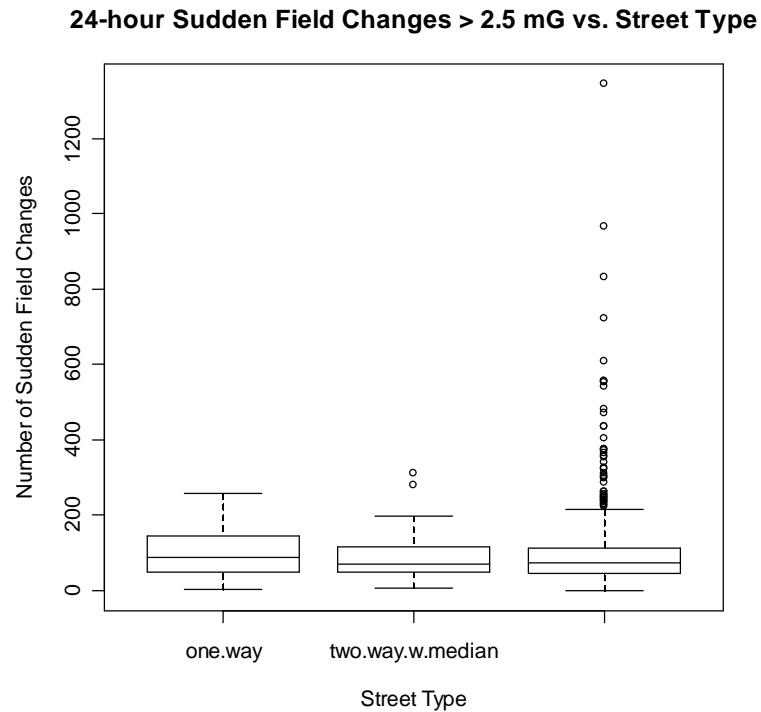


Table 3.10.47: Summary measures for 24-hour Sudden Field Changes Exceeding 2.5 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	92	60	65	86	184	240	256
two.way.w.media n	53	89	60	71	70	183	293	310
two.way.wo.medi an	853	93	98	NA	71	216	509	1343

Figure 3.10.48: Distribution of 24-hour Sudden Field Changes Exceeding 5 mG by Street Type



Table 3.10.48: Summary measures for 24-hour Sudden Field Changes Exceeding 5 mG by Street Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
one.way	48	39	30	NA	33	90	121	142
two.way.w.media n	53	36	28	27	26	71	138	154
two.way.wo.medi an	853	40	61	NA	25	110	284	1037

Figure 3.10.49: Distribution of 24-hour Longest Period Exceeding 4 mG by Street Type

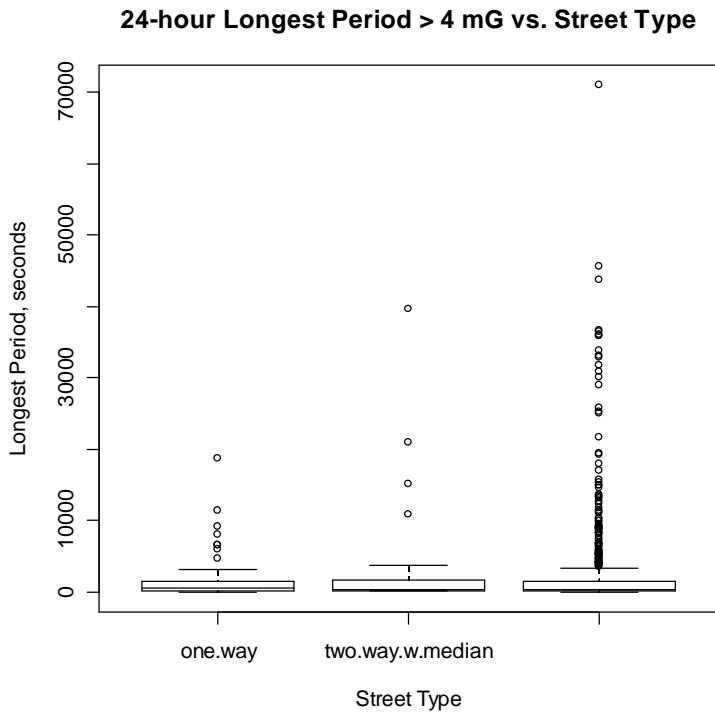


Table 3.10.49: Summary measures for 24-hour Longest Period Exceeding 4 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	1976	3604	NA	515	8778	15265	18710
two.way.w.media n	53	2254	6409	402	280	12412	29868	39680
two.way.wo.medi an	853	2133	5801	NA	370	9312	33392	70940

Figure 3.10.50: Distribution of 24-hour Longest Period Exceeding 16 mG by Street Type

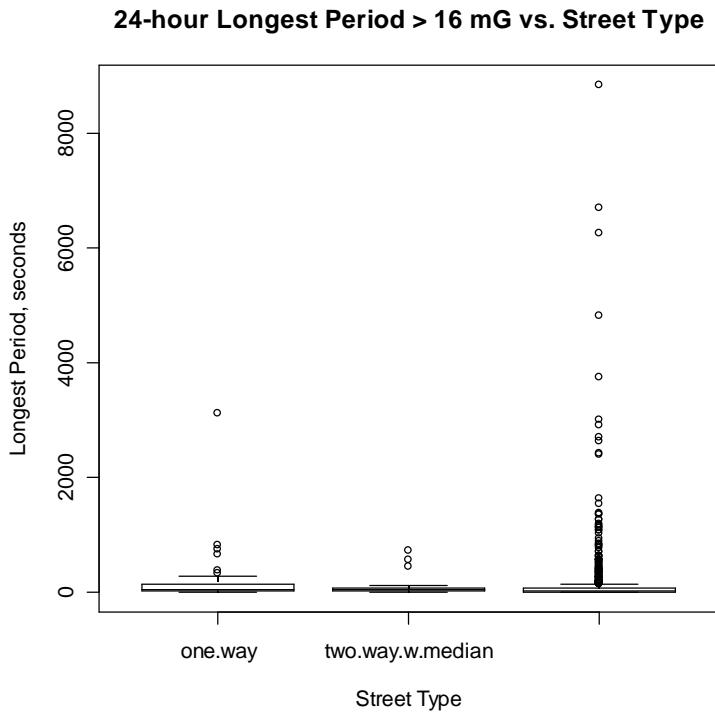


Table 3.10.50: Summary measures for 24-hour Longest Period Exceeding 16 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	172	471	NA	45	702	2029	3110
two.way.w.media n	53	61	130	NA	30	232	622	710
two.way.wo.medi an	853	132	559	NA	20	540	2511	8840

Figure 3.10.51: Distribution of 24-hour Fraction of Measurements Exceeding 4 mG by Street Type

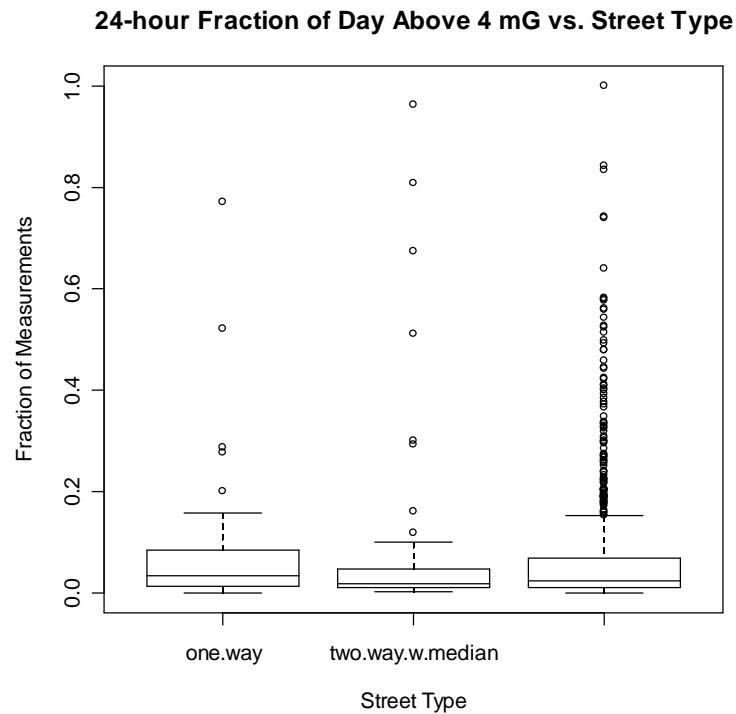


Table 3.10.51: Summary measures for 24-hour Fraction of Measurements Exceeding 4 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	0.0817	0.1386	NA	0.0339	0.2830	0.6540	0.7719
two.way.w.media n	53	0.0919	0.2015	0.0238	0.0176	0.5755	0.8835	0.9638
two.way.wo.media n	853	0.0669	0.1169	NA	0.0216	0.3007	0.5679	0.9994

Figure 3.10.52: Distribution of 24-hour Fraction of Measurements Exceeding 16 mG by Street Type

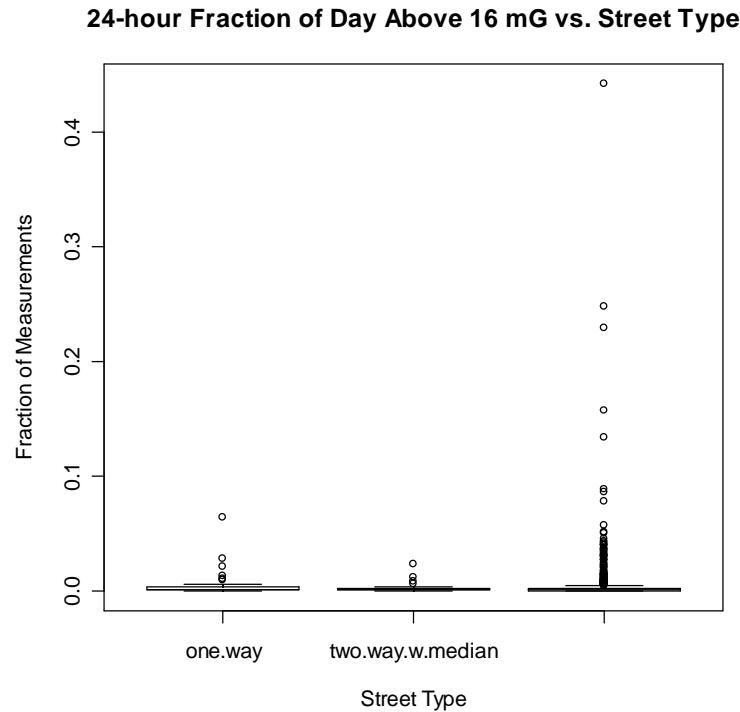


Table 3.10.52: Summary measures for 24-hour Fraction of Measurements Exceeding 16 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	0.0042	0.0101	NA	0.0009	0.0173	0.0464	0.0633
two.way.w.media n	53	0.0017	0.0036	NA	0.0007	0.0058	0.0170	0.0230
two.way.wo.medi an	853	0.0042	0.0217	NA	0.0005	0.0151	0.0539	0.4419

Figure 3.10.53: Distribution of 24-hour 90th Percentile by Street Type

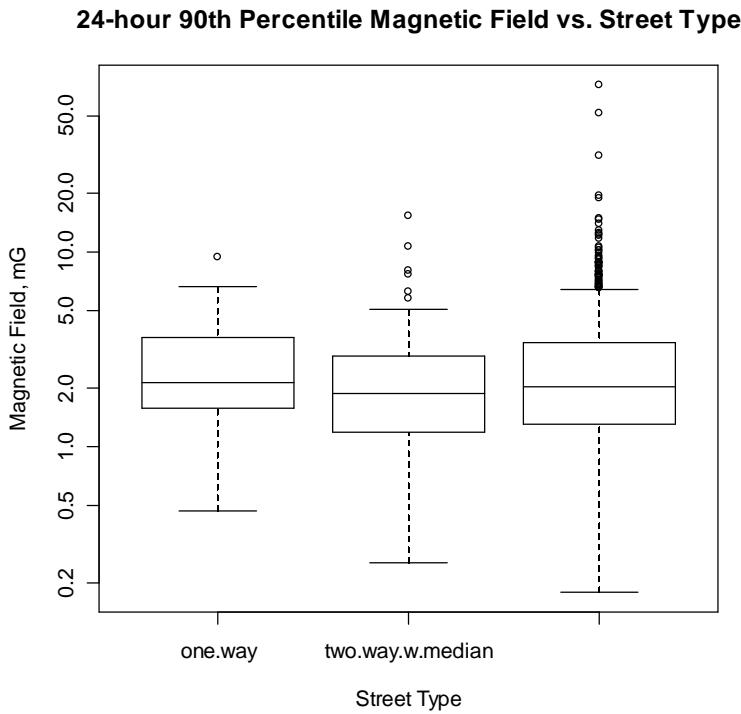


Table 3.10.53: Summary measures for 24-hour 90th Percentile by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	2.74	1.79	2.27	2.13	5.92	8.03	9.31
two.way.w.media n	53	2.73	2.70	1.99	1.89	7.77	12.91	15.30
two.way.wo.medi an	853	2.88	3.77	2.13	2.03	7.38	12.68	70.90

Figure 3.10.54: Distribution of 24-hour 95th Percentile by Street Type

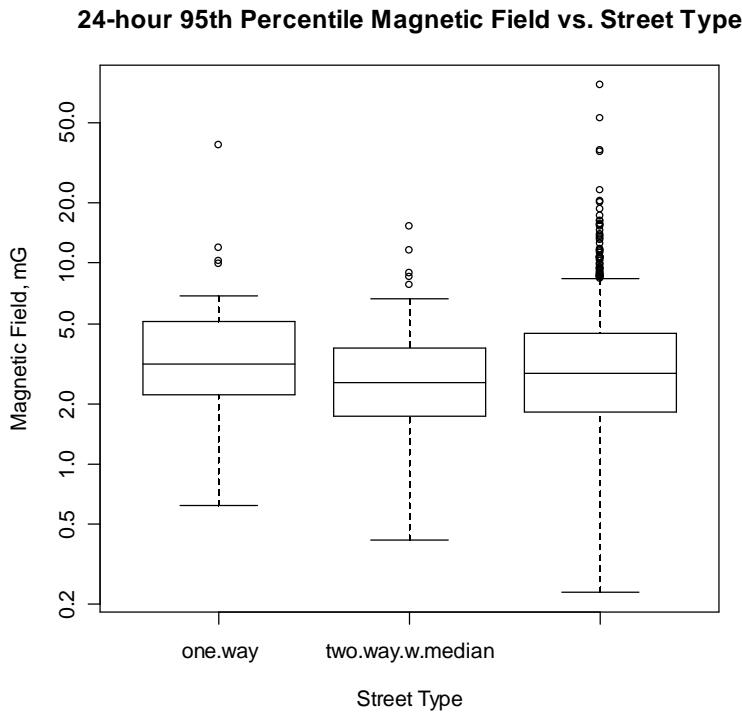


Table 3.10.54: Summary measures for 24-hour 95th Percentile by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	4.50	5.60	3.31	3.14	10.10	26.21	38.90
two.way.w.media n	53	3.49	2.79	2.74	2.54	8.62	13.32	15.30
two.way.wo.medi an	853	3.85	4.42	2.93	2.83	9.29	16.68	76.50

Figure 3.10.55: Distribution of 24-hour 99th Percentile by Street Type

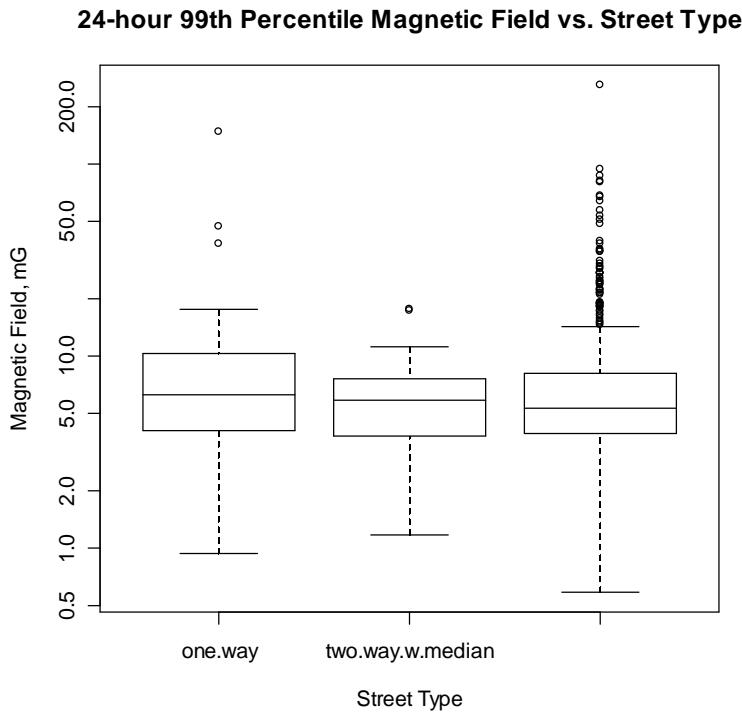


Table 3.10.55: Summary measures for 24-hour 99th Percentile by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	11.10	21.56	6.62	6.24	31.15	99.78	146.50
two.way.w.media n	53	6.18	3.33	5.36	5.91	10.94	17.29	17.50
two.way.wo.medi an	853	7.92	12.21	5.81	5.38	20.98	55.53	254.40

Figure 3.10.56: Distribution of 24-hour Maximum by Street Type

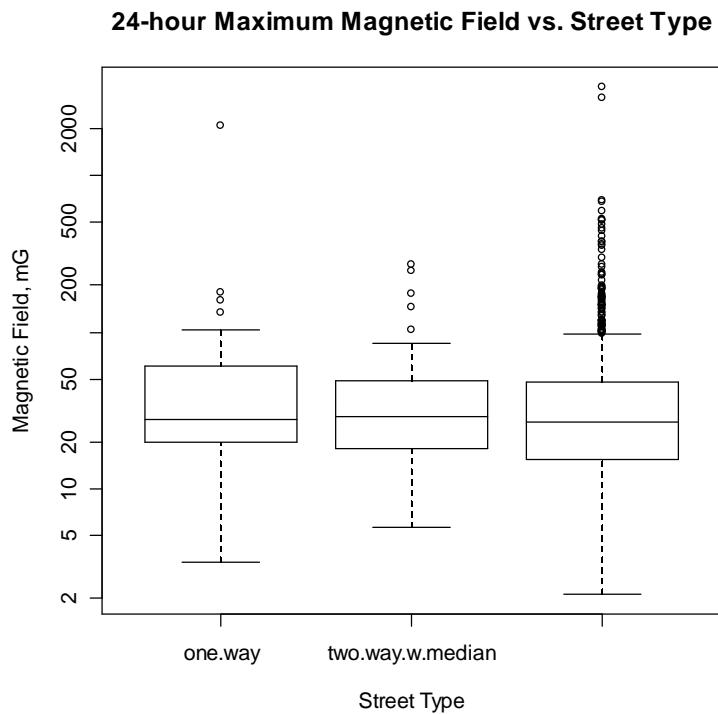


Table 3.10.56: Summary measures for 24-hour Maximum by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	48	85.75	295.75	33.83	27.50	150.08	1184.03	2075.20
two.way.w.media n	53	47.30	52.33	32.86	29.10	156.42	255.55	267.20
two.way.wo.medi an	853	55.25	176.32	29.60	26.70	152.62	469.95	3620.80

Figure 3.10.57: Distribution of 24-hour TWA by Proximity to Train

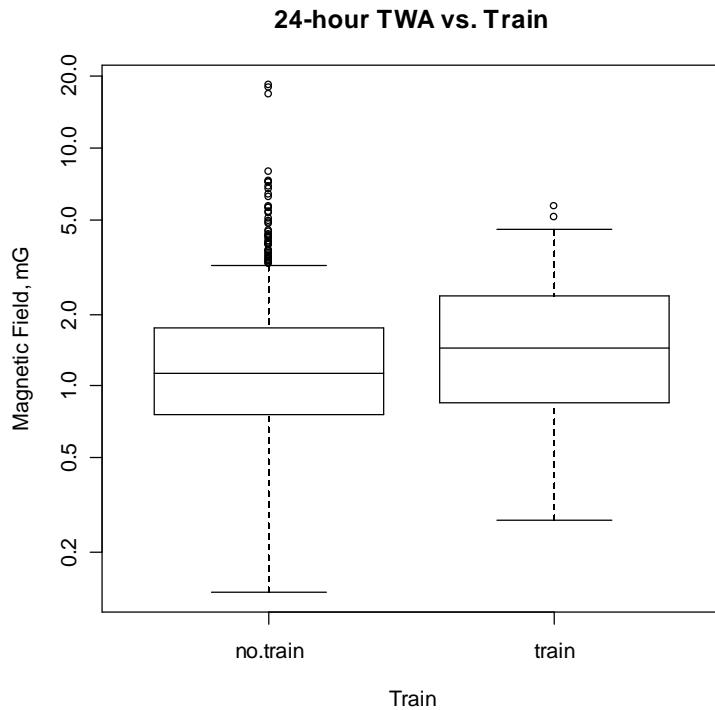


Table 3.10.57: Summary measures for 24-hour TWA by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	1.46	1.39	1.17	1.12	3.31	6.41	18.23
train	80	1.80	1.23	1.44	1.44	4.34	5.24	5.64

Figure 3.10.58: Distribution of 24-hour Harmonic TWA by Proximity to Train

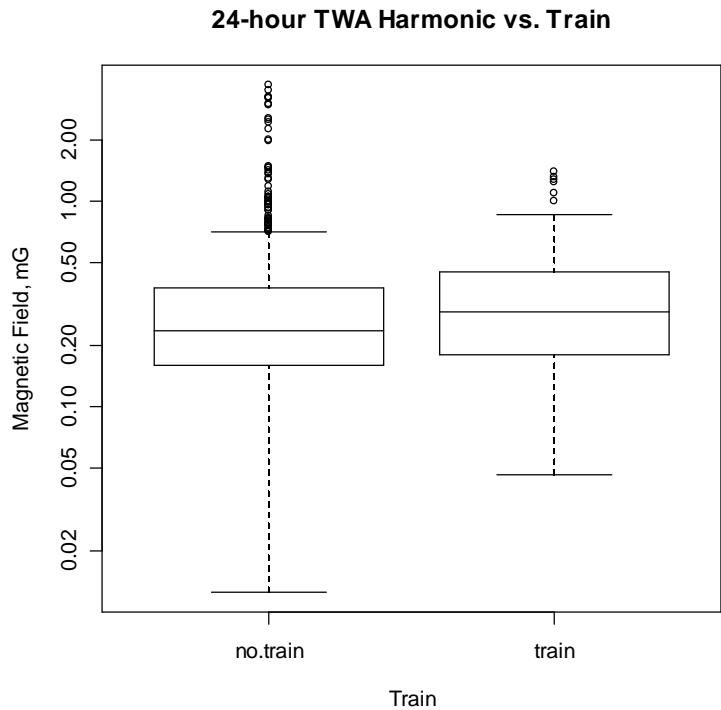


Table 3.10.58: Summary measures for 24-hour Harmonic TWA by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	0.34	0.38	0.25	0.23	0.81	2.43	3.64
train	80	0.38	0.31	0.30	0.29	1.10	1.32	1.38

Figure 3.10.59: Distribution of 24-hour Rate-of-Change Metric (RCM) by Proximity to Train

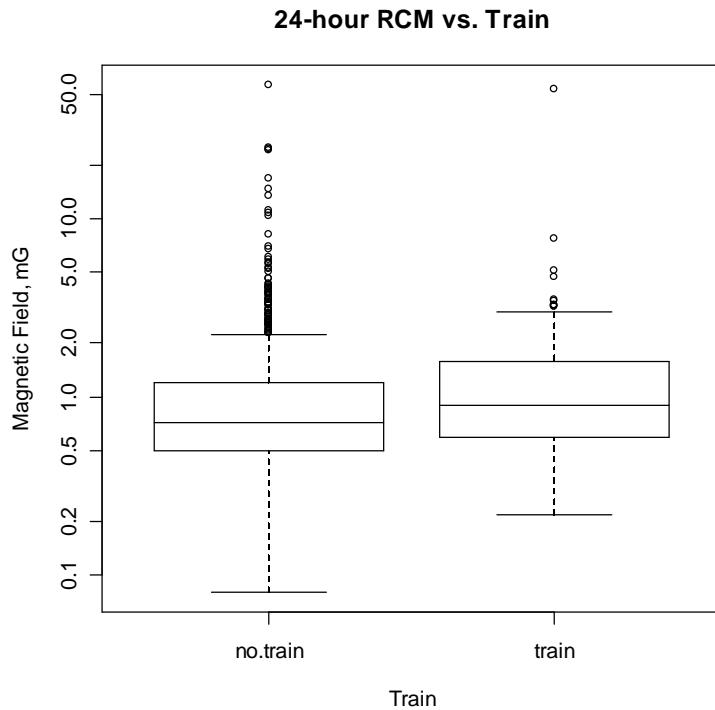


Table 3.10.59: Summary measures for 24-hour Rate-of-Change Metric (RCM) by Proximity to Train

	n	mean	std.dev	geo.meas n	p50	p95	p99	max
no.train	877	1.22	2.65	0.80	0.71	3.13	10.40	55.49
train	80	2.01	5.98	1.02	0.90	3.53	17.37	53.55

Figure 3.10.60: Distribution of 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Proximity to Train

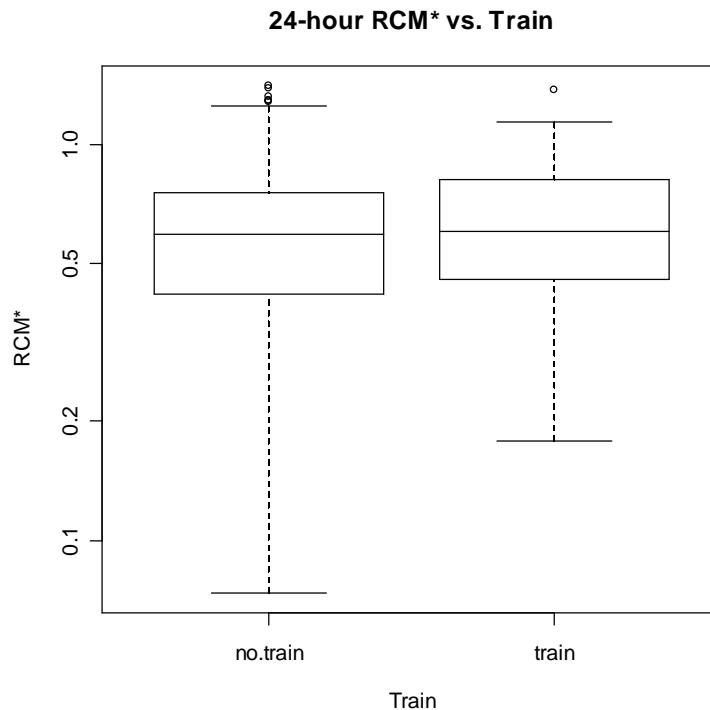


Table 3.10.60: Summary measures for 24-hour Dimensionless Rate-of-Change Metric (RCM*) by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	0.600	0.237	0.548	0.593	0.995	1.239	1.400
train	80	0.631	0.247	0.579	0.603	0.990	1.186	1.370

Figure 3.10.61: Distribution of 24-hour Sudden Field Changes Exceeding 2.5 mG by Proximity to Train



Table 3.10.61: Summary measures for 24-hour Sudden Field Changes Exceeding 2.5 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	92	96	NA	70	212	495	1343
train	80	94	67	68	83	196	342	353

Figure 3.10.62: Distribution of 24-hour Sudden Field Changes Exceeding 5 mG by Proximity to Train

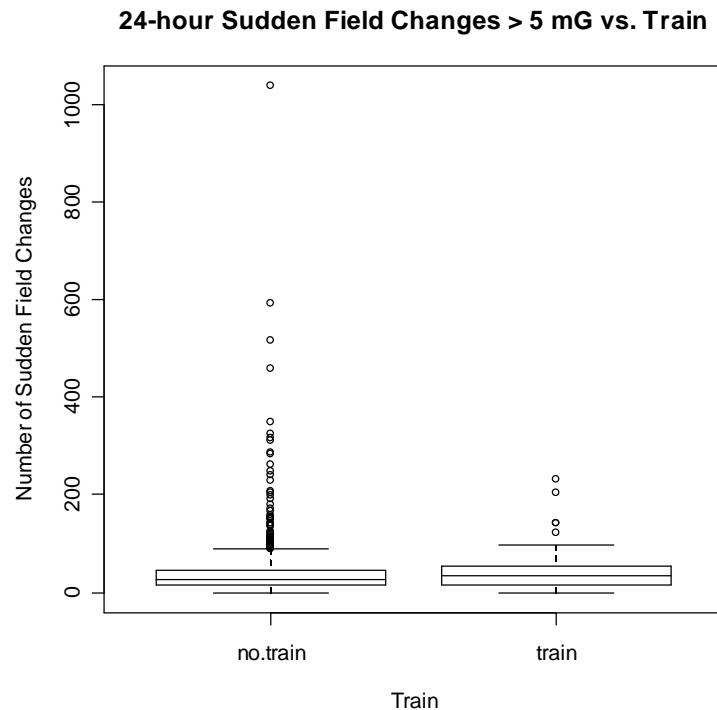


Table 3.10.62: Summary measures for 24-hour Sudden Field Changes Exceeding 5 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	39	60	NA	25	106	284	1037
train	80	43	42	NA	36	124	211	232

Figure 3.10.63: Distribution of 24-hour Longest Period Exceeding 4 mG by Proximity to Train

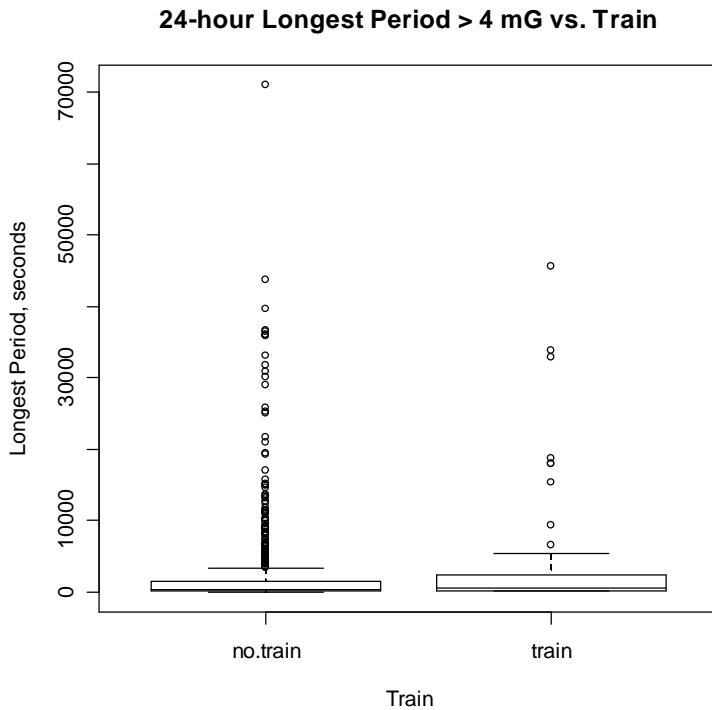


Table 3.10.63: Summary measures for 24-hour Longest Period Exceeding 4 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	2027	5508	NA	350	9162	32003	70940
train	80	3323	7902	625	450	17969	36204	45550

Figure 3.10.64: Distribution of 24-hour Longest Period Exceeding 16 mG by Proximity to Train

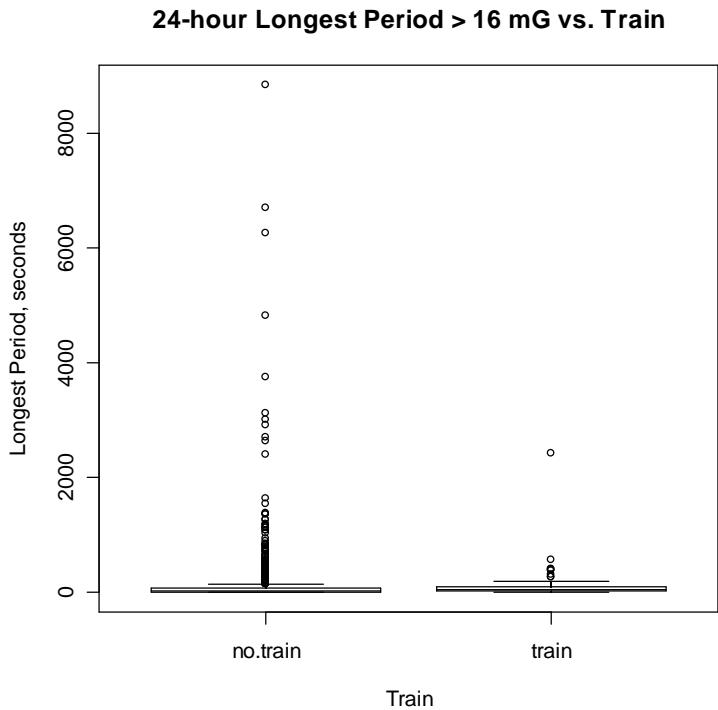


Table 3.10.64: Summary measures for 24-hour Longest Period Exceeding 16 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	133	557	NA	20	552	2639	8840
train	80	97	283	NA	25	371	933	2410

Figure 3.10.65: Distribution of 24-hour Fraction of Measurements Exceeding 4 mG by Proximity to Train

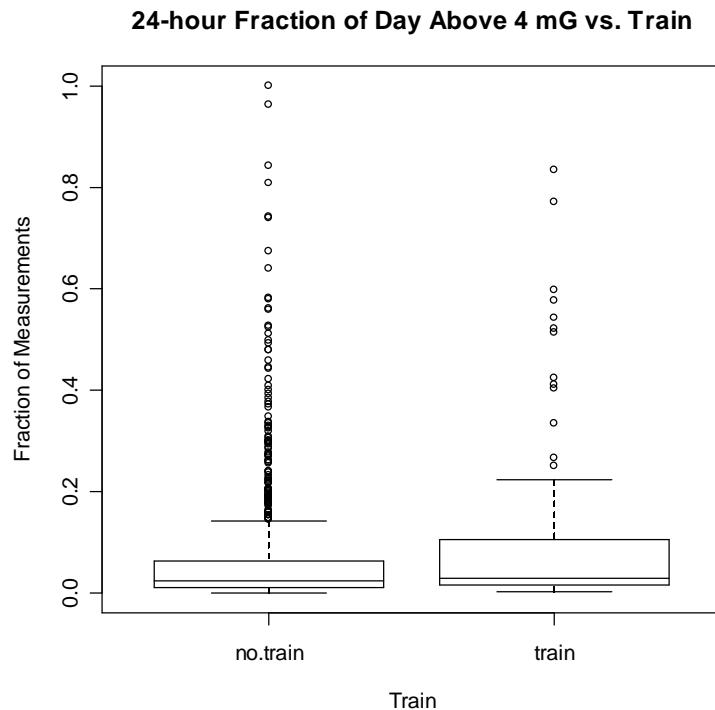


Table 3.10.65: Summary measures for 24-hour Fraction of Measurements Exceeding 4 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	0.0654	0.1173	NA	0.0215	0.2916	0.5796	0.9994
train	80	0.1140	0.1869	0.0358	0.0276	0.5427	0.7850	0.8340

Figure 3.10.66: Distribution of 24-hour Fraction of Measurements Exceeding 16 mG by Proximity to Train

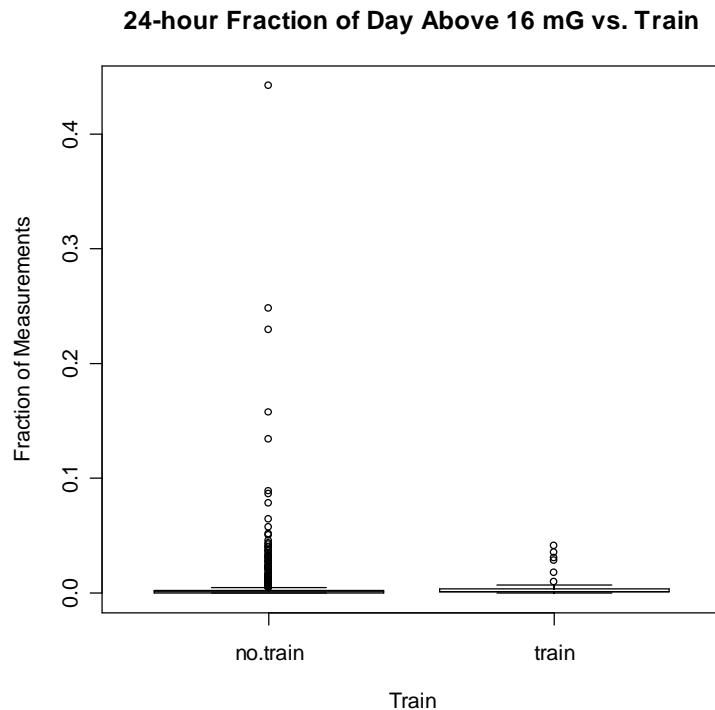


Table 3.10.66: Summary measures for 24-hour Fraction of Measurements Exceeding 16 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	0.0042	0.0215	NA	0.0005	0.0142	0.0586	0.4419
train	80	0.0032	0.0074	NA	0.0006	0.0174	0.0356	0.0406

Figure 3.10.67: Distribution of 24-hour 90th Percentile by Proximity to Train

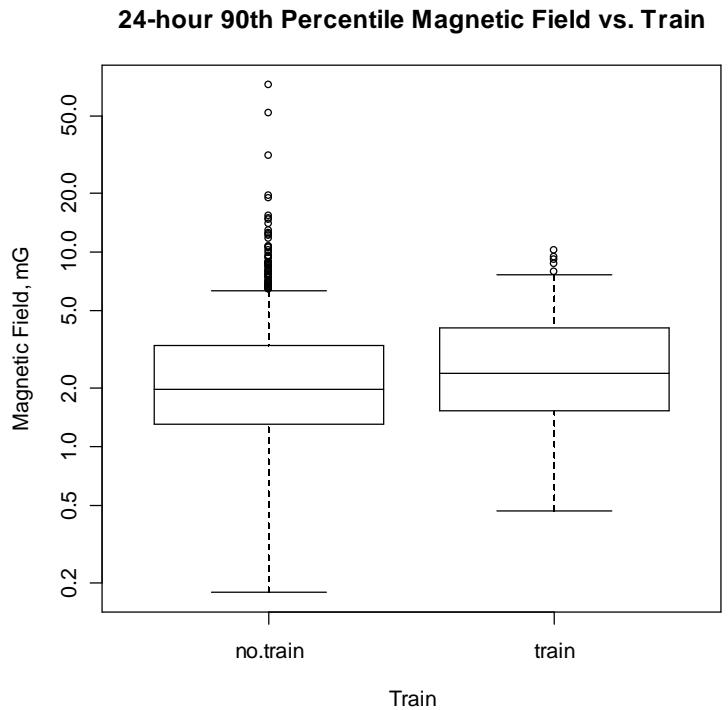


Table 3.10.67: Summary measures for 24-hour 90th Percentile by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	2.85	3.74	2.11	1.98	7.11	13.11	70.90
train	80	3.10	2.26	2.44	2.36	7.92	9.48	10.10

Figure 3.10.68: Distribution of 24-hour 95th Percentile by Proximity to Train

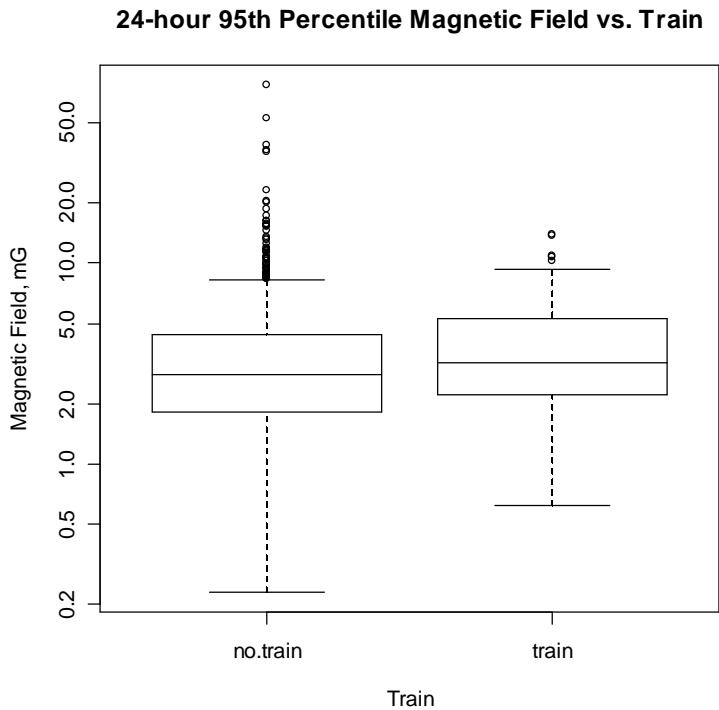


Table 3.10.68: Summary measures for 24-hour 95th Percentile by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	3.84	4.52	2.90	2.77	9.30	17.59	76.50
train	80	4.17	2.94	3.34	3.19	10.23	13.79	13.90

Figure 3.10.69: Distribution of 24-hour 99th Percentile by Proximity to Train

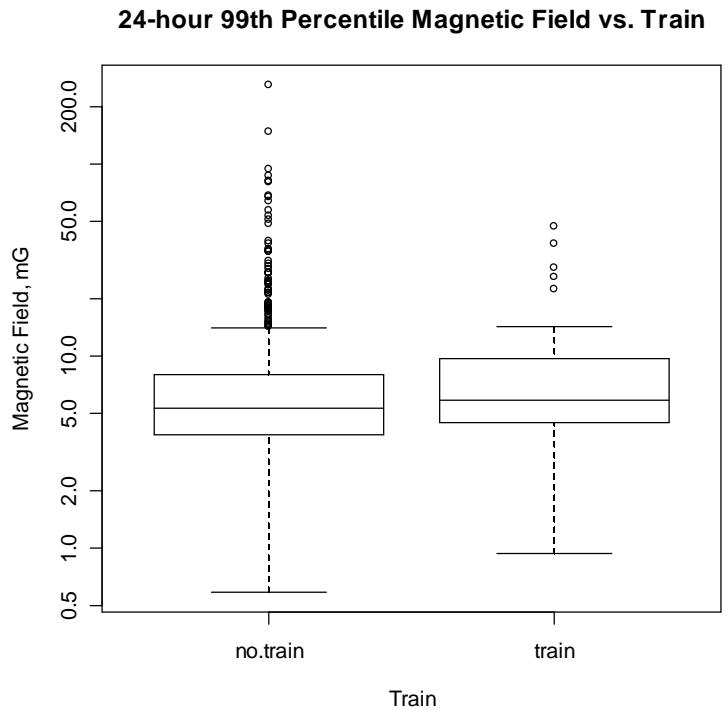


Table 3.10.69: Summary measures for 24-hour 99th Percentile by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	7.97	12.91	5.77	5.38	18.74	58.79	254.40
train	80	8.10	7.37	6.35	5.88	22.47	40.31	47.10

Figure 3.10.70: Distribution of 24-hour Maximum by Proximity to Train

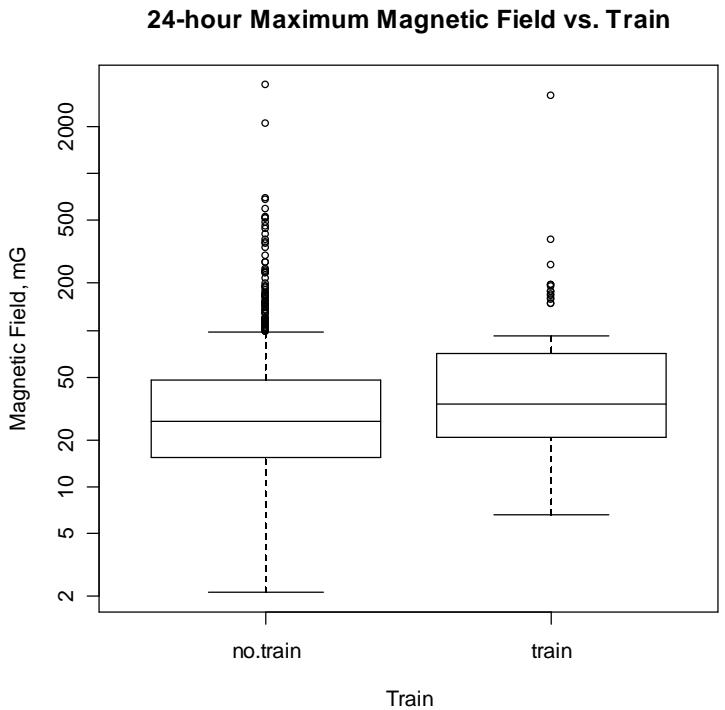


Table 3.10.70: Summary measures for 24-hour Maximum by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	877	52.39	154.89	29.12	25.90	140.38	464.58	3620.80
train	80	98.43	348.97	40.49	34.00	193.64	950.72	3124.80

Figure 3.10.71: Distribution of Home TWA by Wire-code Category

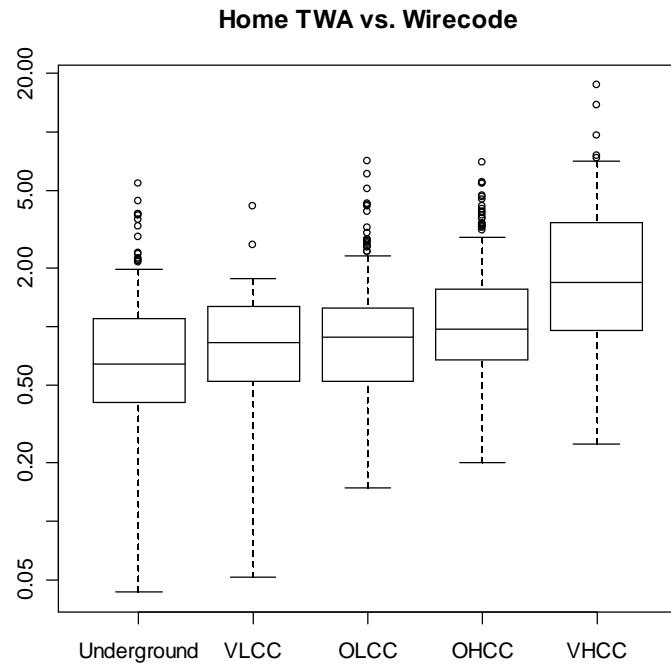


Table 3.10.71: Summary measures for Home TWA by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	0.88	0.78	0.66	0.64	2.22	3.77	5.43
VLCC	58	0.96	0.63	0.78	0.83	1.71	3.28	4.15
OLCC	233	1.10	0.92	0.86	0.88	2.73	4.83	7.07
OHCC	263	1.32	1.05	1.04	0.97	3.57	5.39	6.91
VHCC	121	2.54	2.49	1.80	1.69	6.78	12.88	17.22

Figure 3.10.72: Distribution of Home Harmonic TWA by Wire-code Category

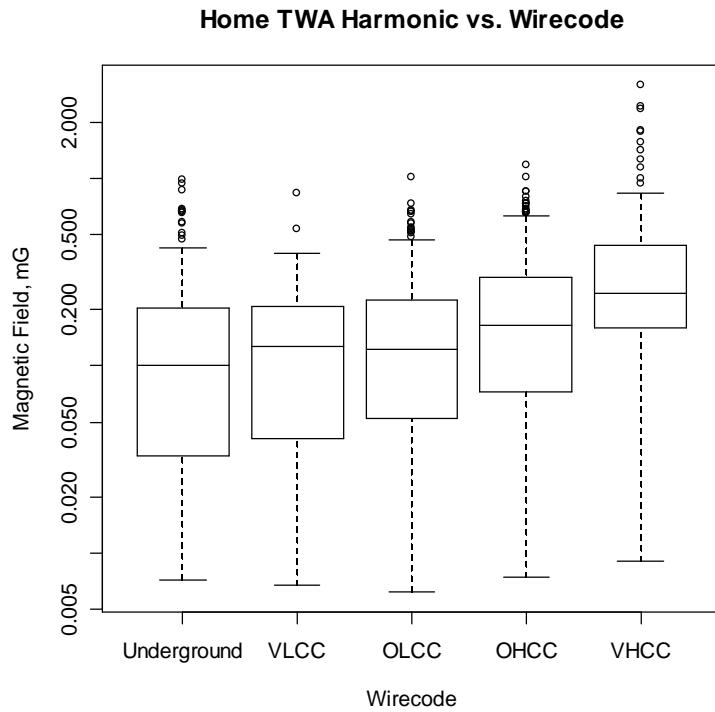


Table 3.10.72: Summary measures for Home Harmonic TWA by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	0.16	0.17	0.09	0.10	0.50	0.84	0.98
VLCC	58	0.15	0.14	0.10	0.13	0.34	0.66	0.83
OLCC	233	0.17	0.16	0.10	0.12	0.52	0.67	1.02
OHCC	263	0.22	0.20	0.14	0.16	0.66	0.84	1.17
VHCC	121	0.40	0.49	0.23	0.24	1.40	2.41	3.12

Figure 3.10.73: Distribution of Home Rate-of-Change Metric (RCM) by Wire-code Category

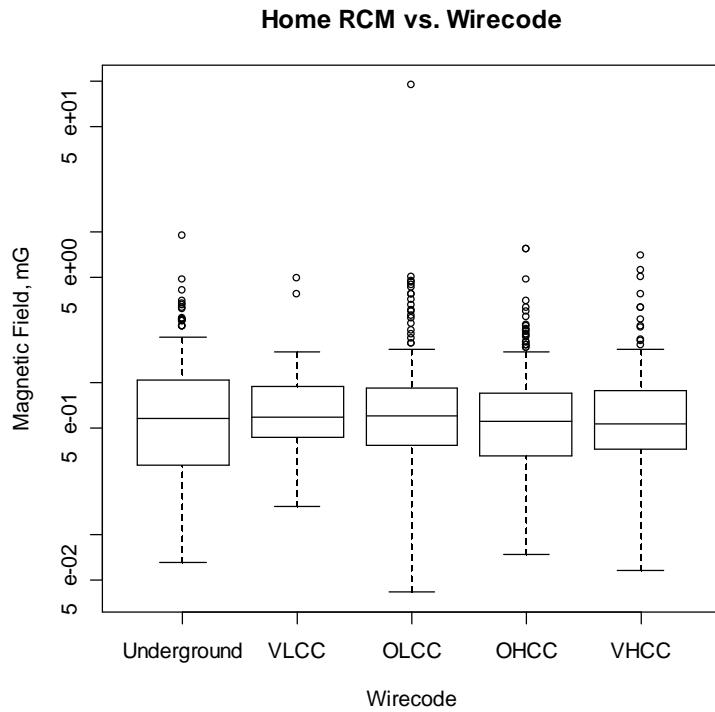


Table 3.10.73: Summary measures for Home Rate-of-Change Metric (RCM) by Wire-code Category

	n	mean	std.dev	geo.means	p50	p95	p99	max
UG	213	0.86	0.98	0.57	0.58	2.60	4.00	9.48
VLCC	58	0.80	0.77	0.63	0.60	1.55	4.31	4.90
OLCC	233	1.23	6.06	0.61	0.61	2.86	4.69	92.40
OHCC	263	0.78	0.86	0.56	0.56	2.06	3.98	7.75
VHCC	121	0.88	1.03	0.60	0.54	2.64	5.46	6.89

Figure 3.10.74: Distribution of Home Dimensionless Rate-of-Change Metric (RCM*) by Wire-code Category

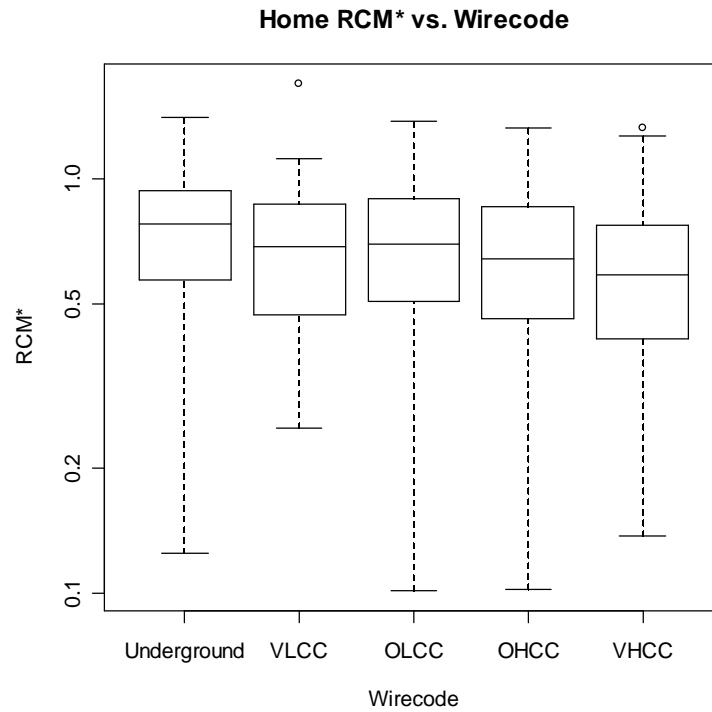


Table 3.10.74: Summary measures for Home Dimensionless Rate-of-Change Metric (RCM*) by Wire-code Category

	n	mean	std.dev	geo.meana	p50	p95	p99	max
UG	213	0.751	0.288	0.682	0.780	1.232	1.362	1.404
VLCC	58	0.692	0.285	0.634	0.686	1.114	1.363	1.684
OLCC	233	0.704	0.263	0.646	0.693	1.109	1.319	1.374
OHCC	263	0.666	0.264	0.607	0.643	1.119	1.251	1.327
VHCC	121	0.604	0.266	0.545	0.585	1.119	1.265	1.327

Figure 3.10.75: Distribution of Home Sudden Field Changes Exceeding 2.5 mG by Wire-code Category

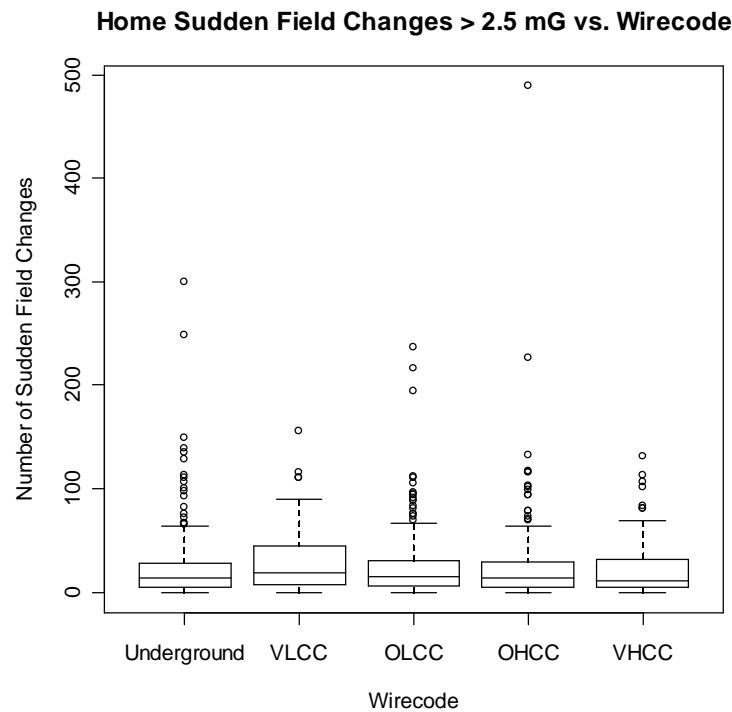


Table 3.10.75: Summary measures for Home Sudden Field Changes Exceeding 2.5 mG by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	24	37	NA	13	94	148	300
VLCC	58	31	34	NA	19	110	132	155
OLCC	233	25	32	NA	15	85	168	237
OHCC	263	24	39	NA	14	73	123	489
VHCC	121	22	27	NA	11	81	112	131

Figure 3.10.76: Distribution of Home Sudden Field Changes Exceeding 5 mG by Wire-code Category

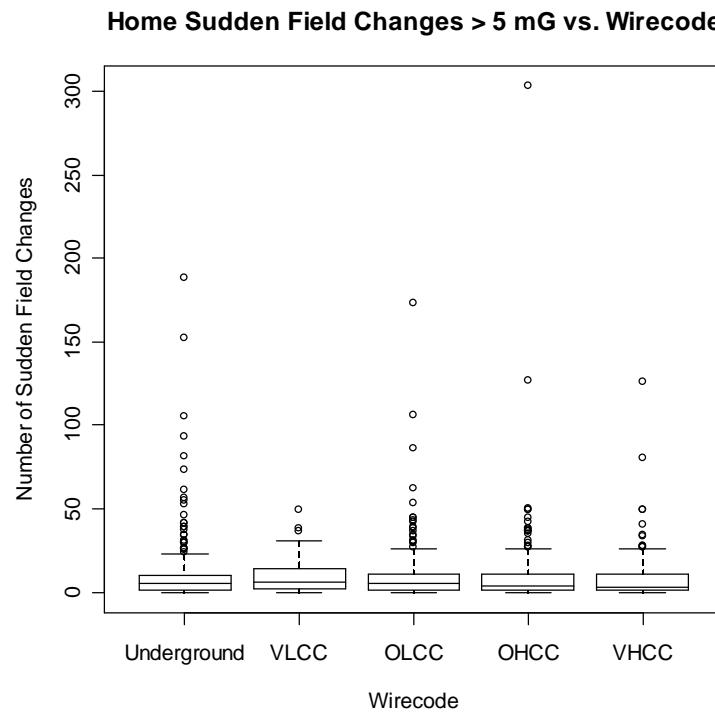


Table 3.10.76: Summary measures for Home Sudden Field Changes Exceeding 5 mG by Wirecode Category

	n	mean	std.dev	geo.meana	p50	p95	p99	max
UG	213	11	22	NA	5	43	104	188
VLCC	58	10	12	NA	6	32	43	49
OLCC	233	10	17	NA	5	35	78	173
OHCC	263	9	22	NA	4	35	49	303
VHCC	121	9	16	NA	3	33	74	126

Figure 3.10.77: Distribution of Home Longest Period Exceeding 4 mG by Wire-code Category

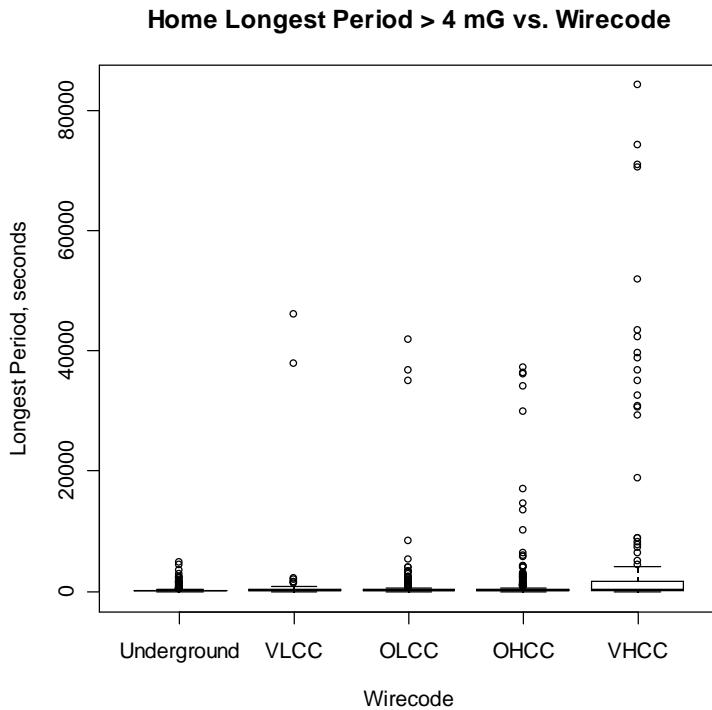


Table 3.10.77: Summary measures for Home Longest Period Exceeding 4 mG by Wire-code Category

	n	mean	std.dev	geo.me an	p50	p95	p99	max
UG	213	258	656	NA	40	1462	3344	4810
VLCC	58	1726	7739	NA	65	1861	41470	46150
OLCC	233	859	4338	NA	60	2568	26433	41750
OHCC	263	1273	5051	NA	50	4034	34866	37120
VHCC	121	6867	16702	NA	250	42190	73604	84110

Figure 3.10.78: Distribution of Home Longest Period Exceeding 16 mG by Wire-code Category

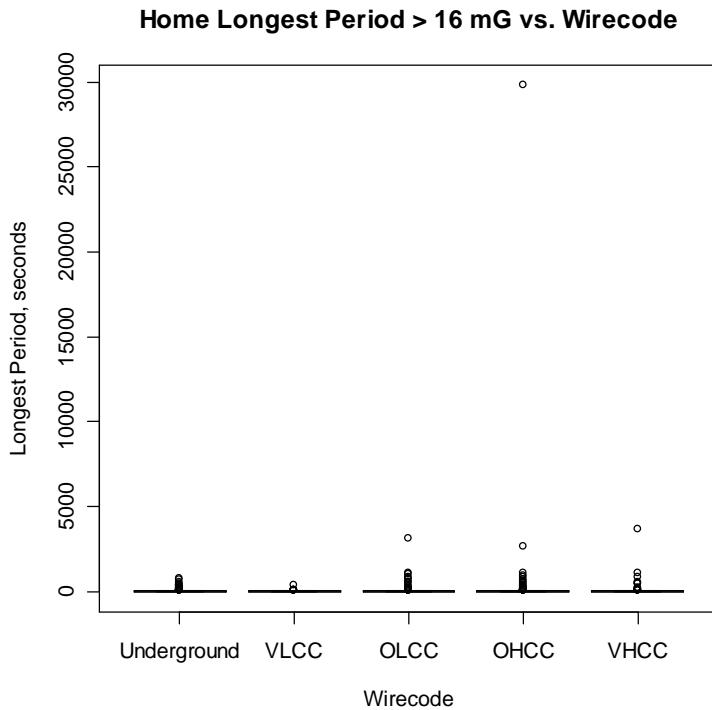


Table 3.10.78: Summary measures for Home Longest Period Exceeding 16 mG by Wire-code Category

	n	mean	std.dev	geo.meana	p50	p95	p99	max
UG	213	27	95	NA	0	134	479	730
VLCC	58	14	49	NA	0	60	189	360
OLCC	233	48	244	NA	0	142	949	3110
OHCC	263	153	1844	NA	0	145	977	29770
VHCC	121	66	357	NA	0	200	1022	3640

Figure 3.10.79: Distribution of Home Fraction of Measurements Exceeding 4 mG by Wire-code Category

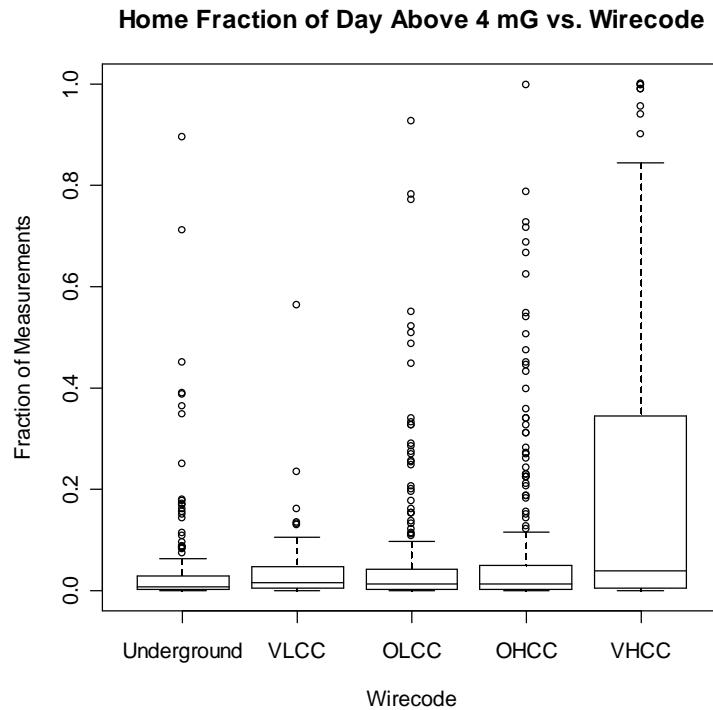


Table 3.10.79: Summary measures for Home Fraction of Measurements Exceeding 4 mG by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	0.0378	0.1010	NA	0.0071	0.1679	0.4432	0.8944
VLCC	58	0.0442	0.0843	NA	0.0141	0.1377	0.3751	0.5635
OLCC	233	0.0589	0.1305	NA	0.0115	0.3026	0.6994	0.9258
OHCC	263	0.0727	0.1528	NA	0.0130	0.4267	0.7188	0.9972
VHCC	121	0.2181	0.3103	NA	0.0390	0.9409	0.9986	0.9991

Figure 3.10.80: Distribution of Home Fraction of Measurements Exceeding 16 mG by Wirecode Category

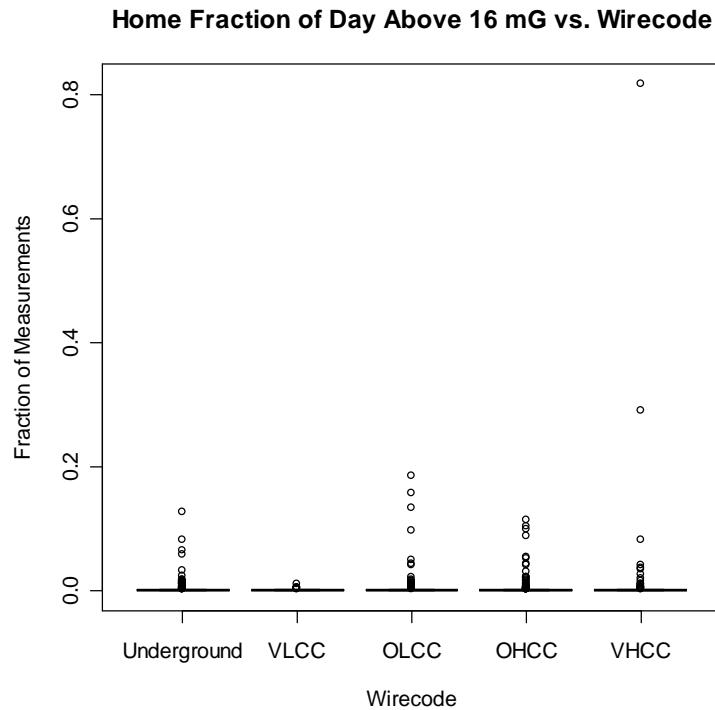


Table 3.10.80: Summary measures for Home Fraction of Measurements Exceeding 16 mG by Wirecode Category

	n	mean	std.dev	geo.meana	p50	p95	p99	max
UG	213	0.0030	0.0122	NA	0.0000	0.0130	0.0621	0.1259
VLCC	58	0.0006	0.0016	NA	0.0000	0.0034	0.0068	0.0105
OLCC	233	0.0040	0.0196	NA	0.0000	0.0109	0.1207	0.1847
OHCC	263	0.0034	0.0139	NA	0.0000	0.0160	0.0910	0.1131
VHCC	121	0.0117	0.0788	NA	0.0000	0.0252	0.2481	0.8160

Figure 3.10.81: Distribution of Home 90th Percentile by Wire-code Category

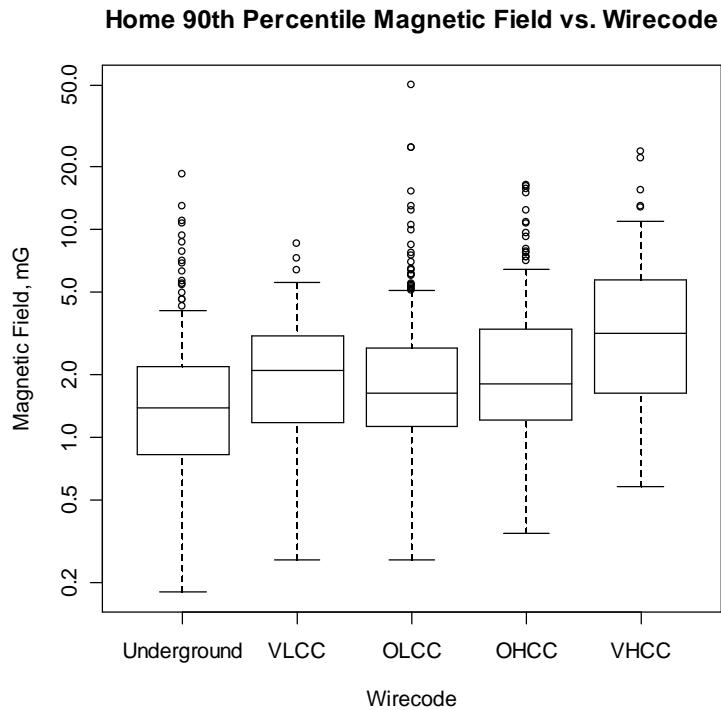


Table 3.10.81: Summary measures for Home 90th Percentile by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	1.94	2.18	1.38	1.39	5.56	10.96	18.30
VLCC	58	2.39	1.67	1.92	2.09	5.66	7.77	8.49
OLCC	233	2.70	4.27	1.80	1.62	6.66	21.69	49.30
OHCC	263	2.67	2.52	2.00	1.82	7.31	15.20	16.30
VHCC	121	4.45	3.93	3.22	3.16	10.73	20.62	23.70

Figure 3.10.82: Distribution of Home 95th Percentile by Wire-code Category

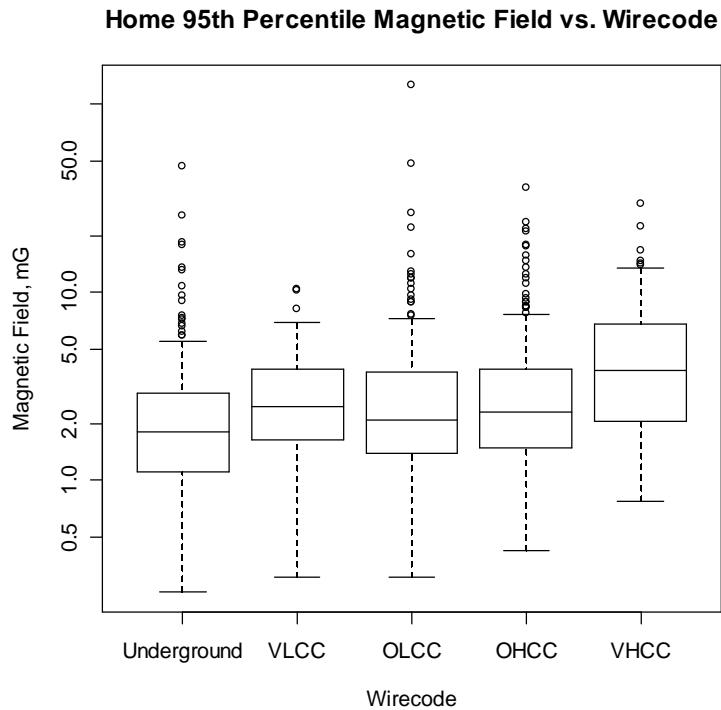


Table 3.10.82: Summary measures for Home 95th Percentile by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	2.79	4.22	1.87	1.81	7.18	18.23	46.70
VLCC	58	3.10	2.14	2.50	2.48	7.07	10.22	10.29
OLCC	233	3.87	9.08	2.38	2.08	9.26	24.89	125.30
OHCC	263	3.52	3.93	2.54	2.29	9.15	21.25	35.90
VHCC	121	5.09	4.44	3.78	3.86	13.50	21.34	29.70

Figure 3.10.83: Distribution of Home 99th Percentile by Wire-code Category

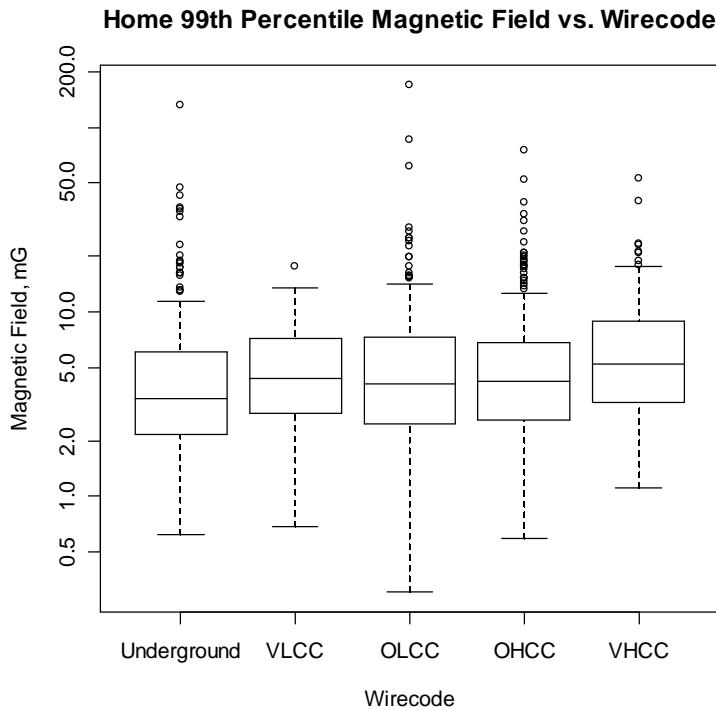


Table 3.10.83: Summary measures for Home 99th Percentile by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	6.30	11.11	3.85	3.41	18.38	42.00	132.30
VLCC	58	5.45	3.47	4.47	4.33	11.92	15.20	17.50
OLCC	233	6.83	13.32	4.28	4.11	16.78	50.80	168.10
OHCC	263	6.34	7.45	4.54	4.21	18.44	35.55	75.10
VHCC	121	7.29	7.07	5.45	5.23	18.70	36.46	52.90

Figure 3.10.84: Distribution of Home Maximum by Wire-code Category

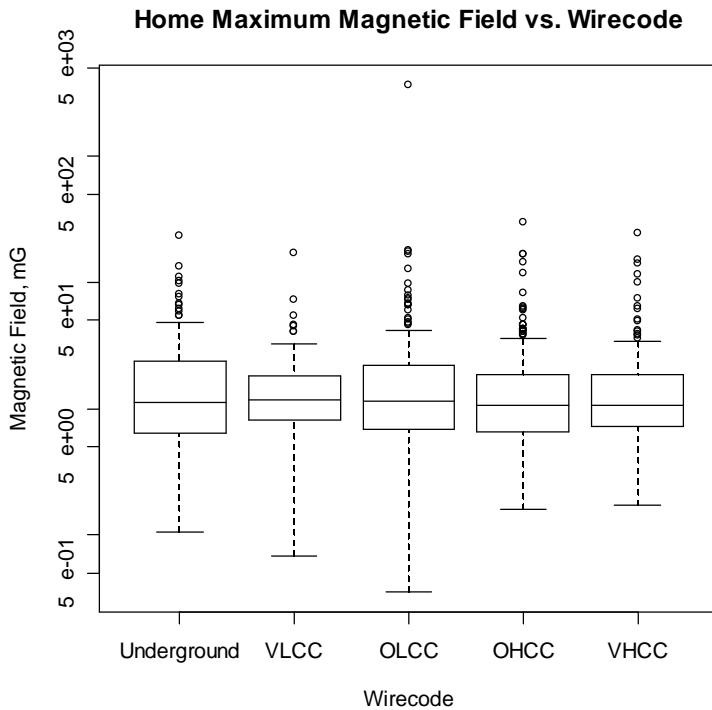


Table 3.10.84: Summary measures for Home Maximum by Wire-code Category

	n	mean	std.dev	geo.me n	p50	p95	p99	max
UG	213	18.99	24.65	11.67	11.29	56.26	108.88	235.20
VLCC	58	18.89	24.41	12.83	11.61	47.44	114.35	170.10
OLCC	233	34.93	237.23	12.57	11.57	65.90	171.91	3620.80
OHCC	263	17.83	27.15	11.47	10.59	45.42	151.83	299.20
VHCC	121	20.27	31.78	12.08	10.61	64.30	149.18	244.80

Figure 3.10.85: Distribution of Home TWA by Transformer Wiring

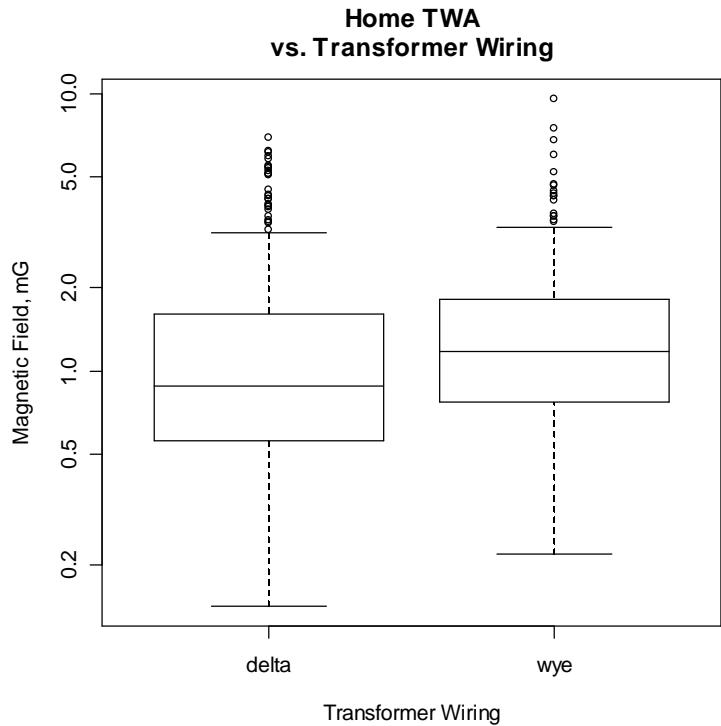


Table 3.10.85: Summary measures for Home TWA by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delta	308	1.33	1.24	0.96	0.88	4.16	5.90	6.91
wye	222	1.51	1.26	1.20	1.18	4.10	6.62	9.49

Figure 3.10.86: Distribution of Home Harmonic TWA by Transformer Wiring

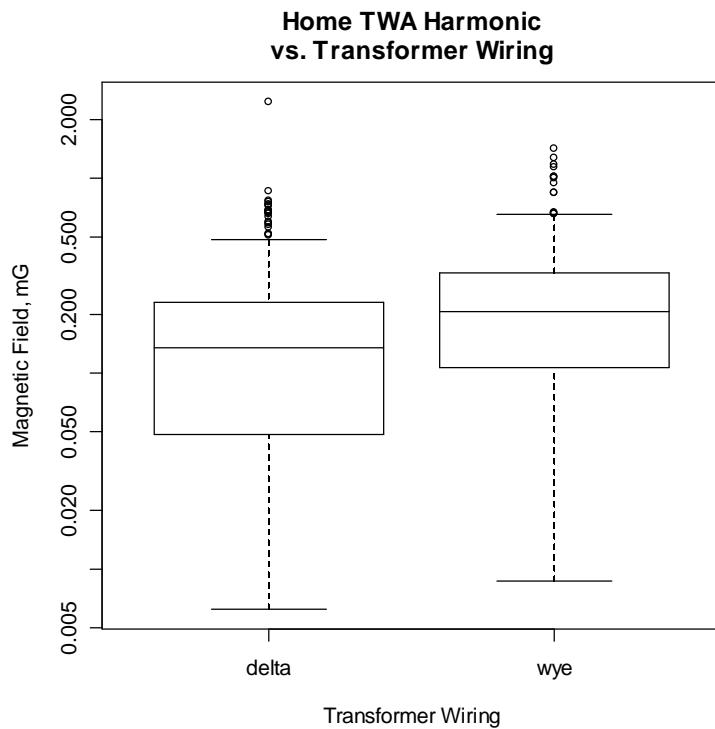


Table 3.10.86: Summary measures for Home Harmonic TWA by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delta	308	0.18	0.21	0.10	0.13	0.59	0.74	2.42
wye	222	0.26	0.24	0.17	0.21	0.66	1.17	1.40

Figure 3.10.87: Distribution of Home Rate-of-Change Metric (RCM) by Transformer Wiring

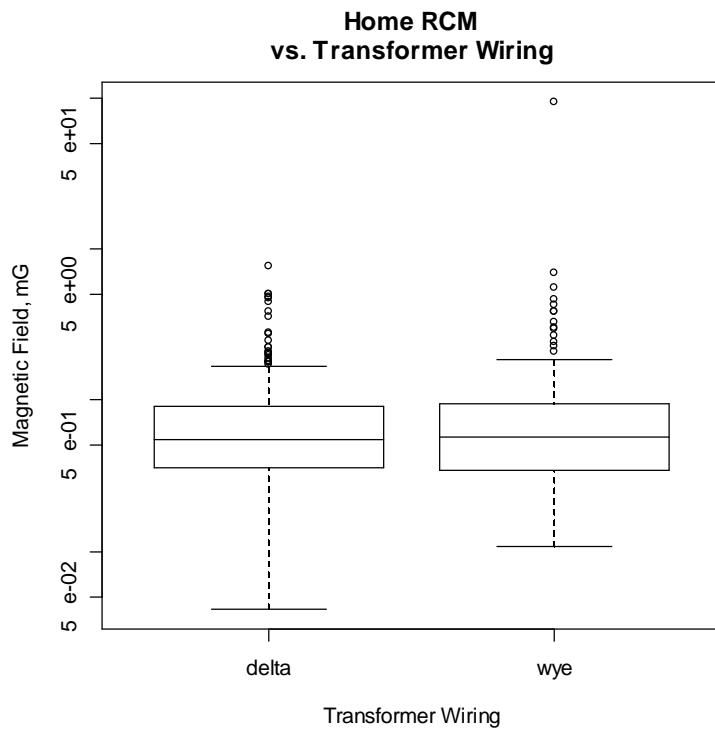


Table 3.10.87: Summary measures for Home Rate-of-Change Metric (RCM) by Transformer Wiring

	n	mean	std.dev	geo.me an	p50	p95	p99	max
delt a	308	0.79	0.84	0.57	0.55	1.99	4.78	7.60
wye	222	1.23	6.21	0.60	0.57	2.39	5.36	92.40

Figure 3.10.88: Distribution of Home Dimensionless Rate-of-Change Metric (RCM*) by Transformer Wiring

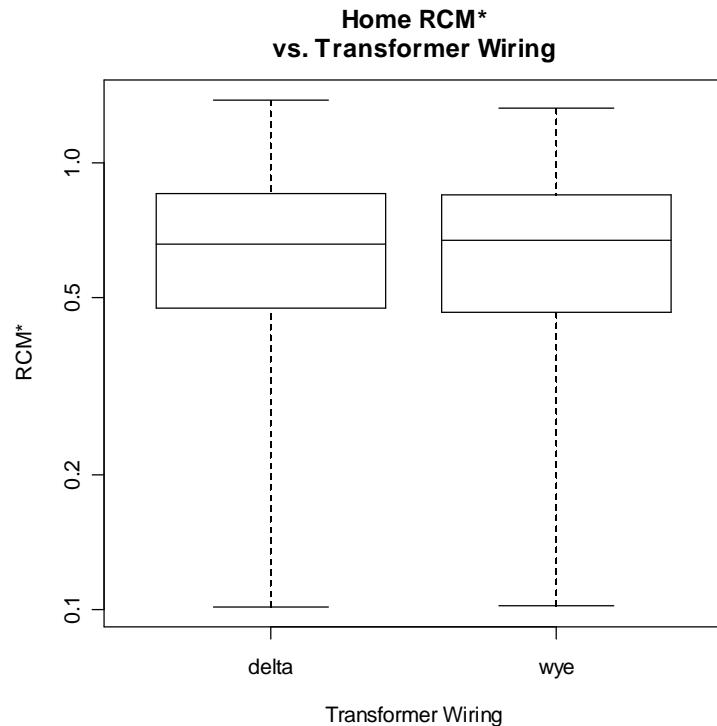


Table 3.10.88: Summary measures for Home Dimensionless Rate-of-Change Metric (RCM*) by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	308	0.676	0.266	0.617	0.654	1.160	1.326	1.374
wye	222	0.661	0.259	0.602	0.668	1.082	1.266	1.324

Figure 3.10.89: Distribution of Home Sudden Field Changes Exceeding 2.5 mG by Transformer Wiring

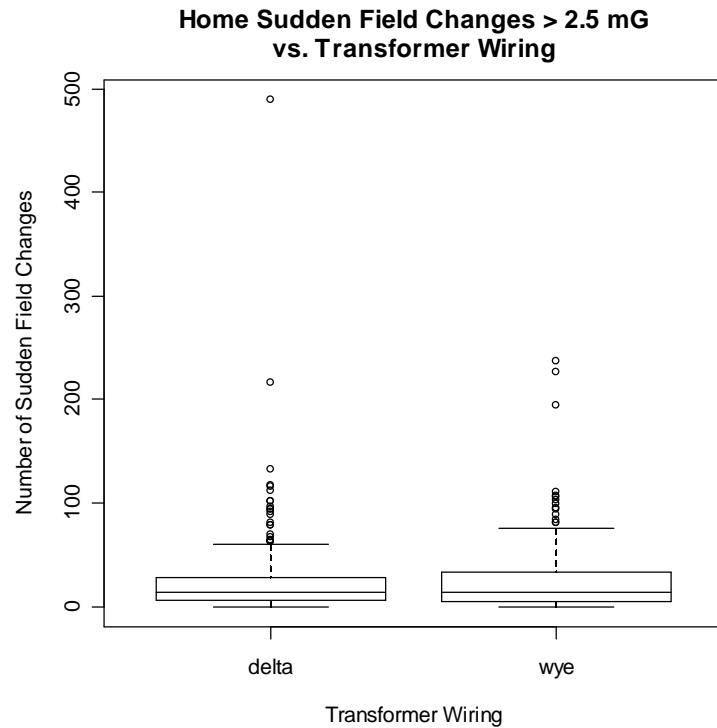


Table 3.10.89: Summary measures for Home Sudden Field Changes Exceeding 2.5 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	308	23	37	NA	13	75	117	489
wye	222	25	34	NA	14	83	176	237

Figure 3.10.90: Distribution of Home Sudden Field Changes Exceeding 5 mG by Transformer Wiring

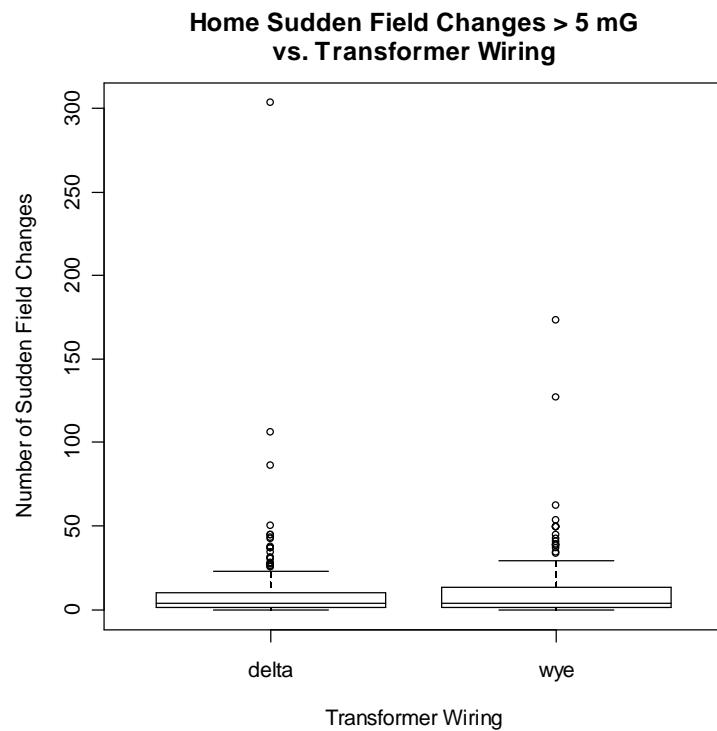


Table 3.10.90: Summary measures for Home Sudden Field Changes Exceeding 5 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	308	9	21	NA	4	29	50	303
wye	222	10	18	NA	4	39	60	173

Figure 3.10.91: Distribution of Home Longest Period Exceeding 4 mG by Transformer Wiring

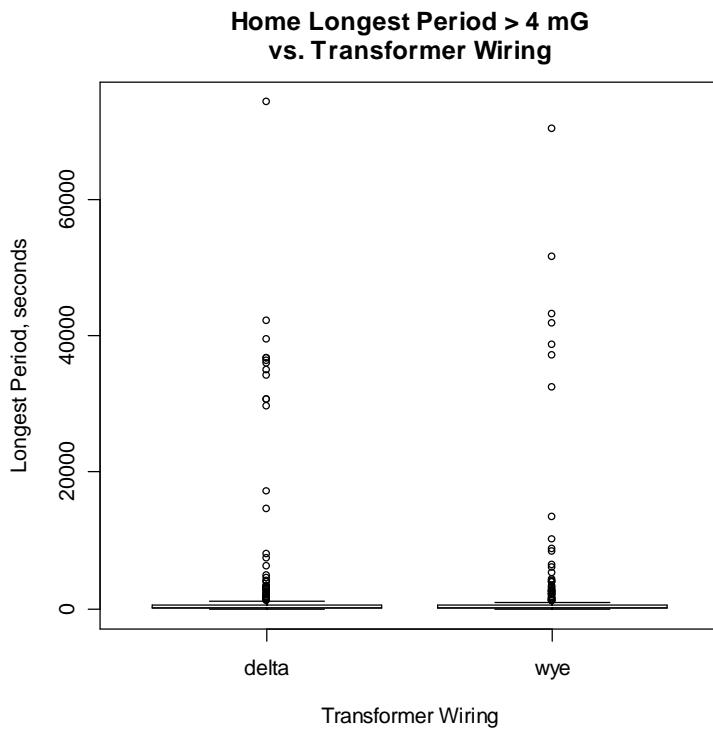


Table 3.10.91: Summary measures for Home Longest Period Exceeding 4 mG by Transformer Wiring

	n	mean	std.dev	geo.me an	p50	p95	p99	max
delt a	308	2022	7855	NA	60	6956	36669	74270
wye	222	2056	8222	NA	80	6394	42967	70380

Figure 3.10.92: Distribution of Home Longest Period Exceeding 16 mG by Transformer Wiring

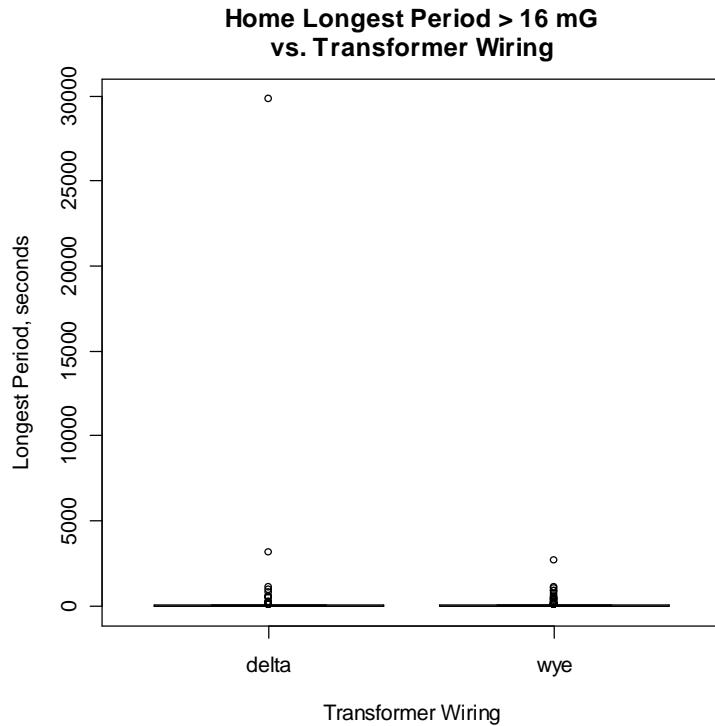


Table 3.10.92: Summary measures for Home Longest Period Exceeding 16 mG by Transformer Wiring

	n	mean	std.dev	geo.me an	p50	p95	p99	max
delt a	308	130	1707	NA	0	73	905	29770
wye	222	51	226	NA	0	266	970	2620

Figure 3.10.93: Distribution of Home Fraction of Measurements Exceeding 4 mG by Transformer Wiring

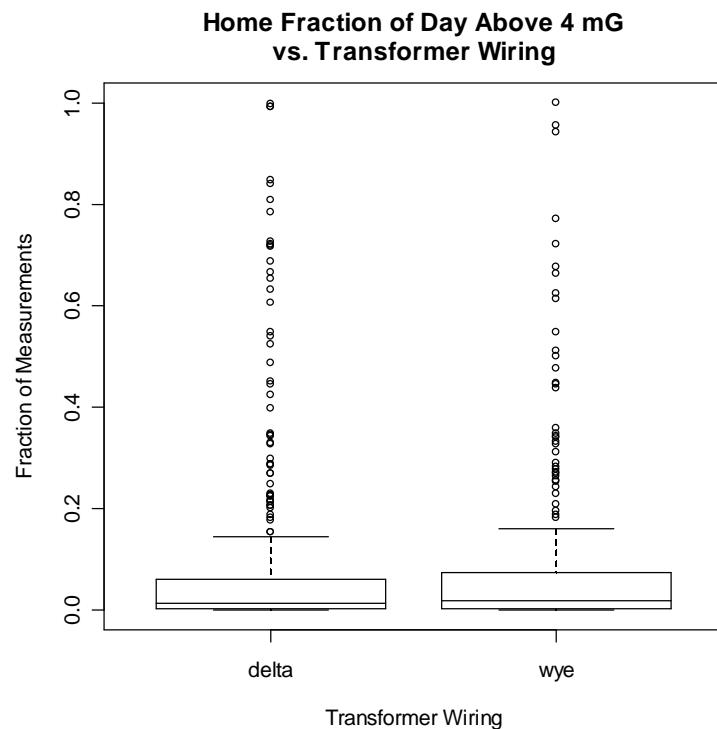


Table 3.10.93: Summary measures for Home Fraction of Measurements Exceeding 4 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	308	0.0907	0.1903	NA	0.0126	0.5838	0.8445	0.9972
wye	222	0.0922	0.1809	NA	0.0165	0.4987	0.9050	0.9975

Figure 3.10.94: Distribution of Home Fraction of Measurements Exceeding 16 mG by Transformer Wiring

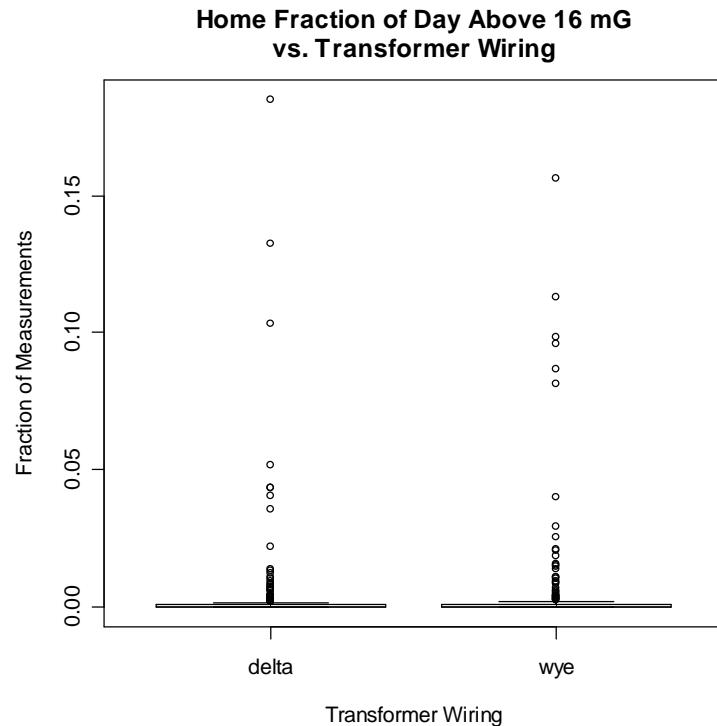


Table 3.10.94: Summary measures for Home Fraction of Measurements Exceeding 16 mG by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	308	0.0028	0.0152	NA	0.0000	0.0077	0.0508	0.1847
wye	222	0.0044	0.0180	NA	0.0000	0.0181	0.0978	0.1560

Figure 3.10.95: Distribution of Home 90th Percentile by Transformer Wiring

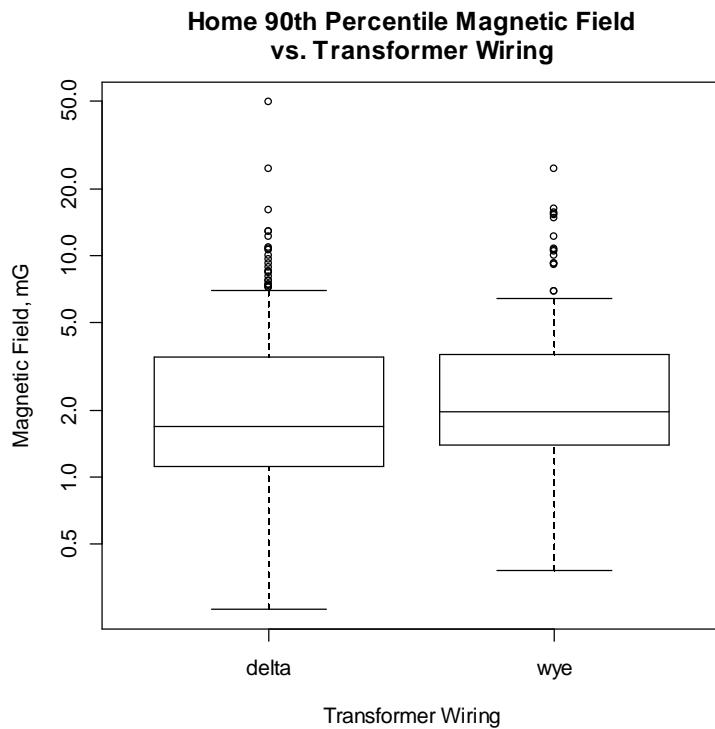


Table 3.10.95: Summary measures for Home 90th Percentile by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delta	308	2.92	3.83	1.99	1.71	8.26	12.90	49.30
wye	222	3.11	3.17	2.29	1.98	9.30	15.66	24.70

Figure 3.10.96: Distribution of Home 95th Percentile by Transformer Wiring

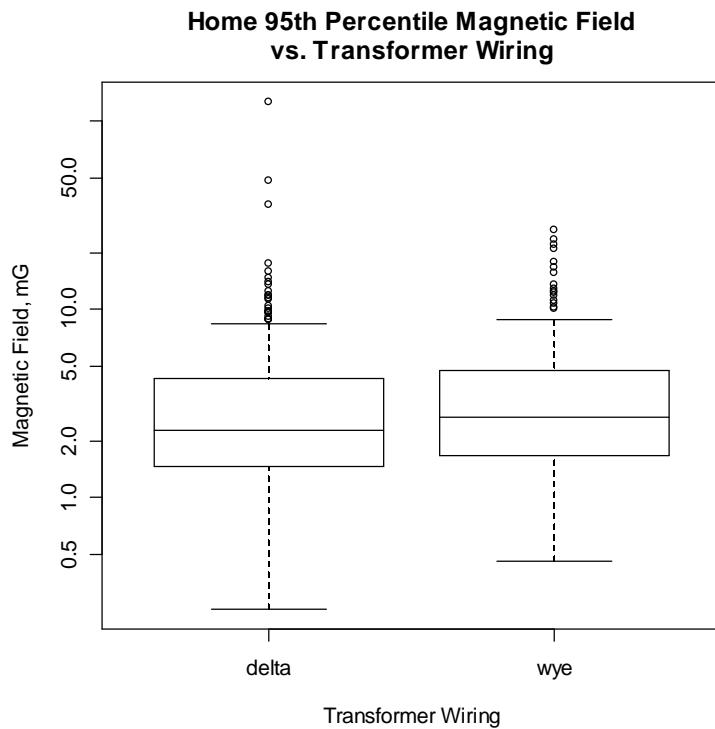


Table 3.10.96: Summary measures for Home 95th Percentile by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delt a	308	3.96	8.13	2.53	2.28	9.69	17.39	125.30
wye	222	3.92	3.91	2.88	2.66	11.86	21.73	26.30

Figure 3.10.97: Distribution of Home 99th Percentile by Transformer Wiring

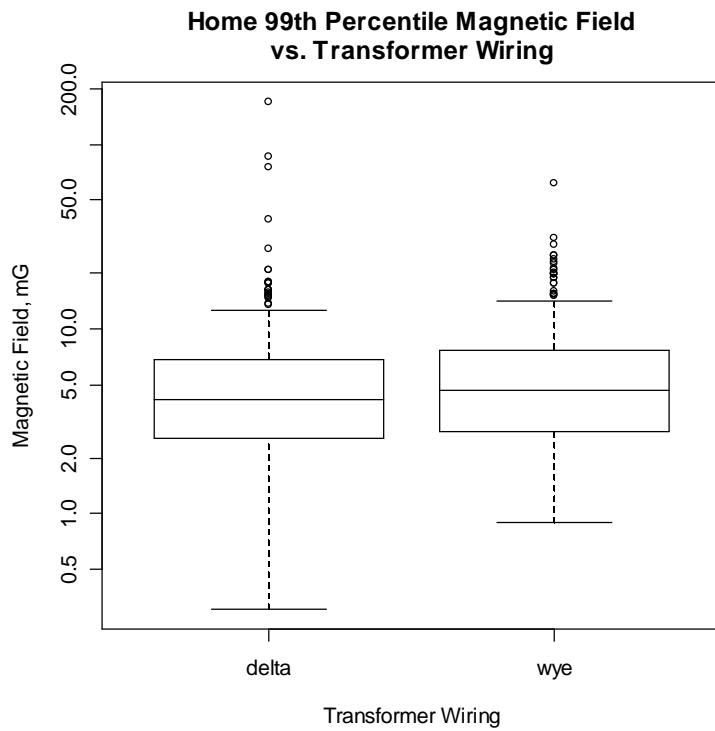


Table 3.10.97: Summary measures for Home 99th Percentile by Transformer Wiring

	n	mean	std.dev	geo.me n	p50	p95	p99	max
delta	308	6.45	11.89	4.37	4.13	15.33	38.09	168.10
wye	222	6.62	6.66	4.79	4.66	19.89	27.74	61.30

Figure 3.10.98: Distribution of Home Maximum by Transformer Wiring

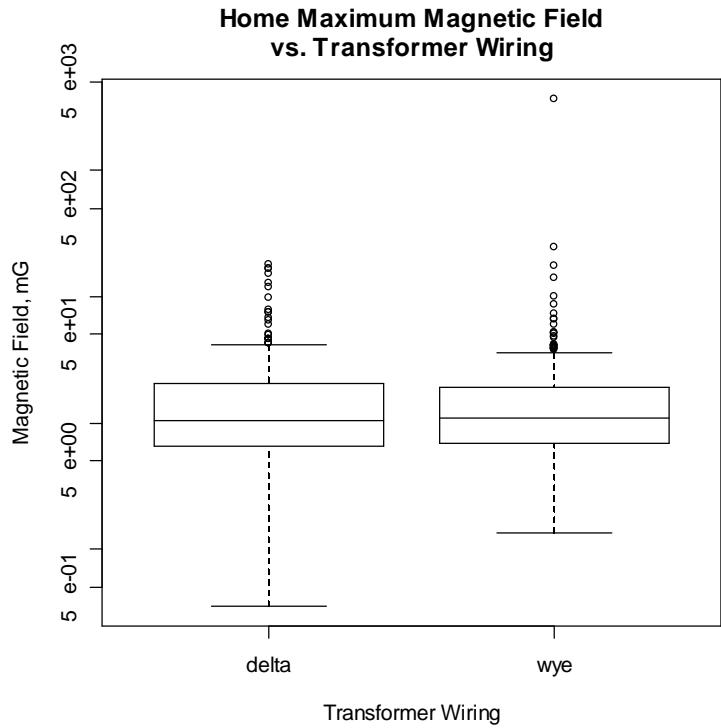


Table 3.10.98: Summary measures for Home Maximum by Transformer Wiring

	n	mean	std.dev	geo.means	p50	p95	p99	max
delta	308	17.92	23.57	11.54	10.48	46.16	149.81	179.10
wye	222	34.66	243.10	12.21	10.91	51.43	167.87	3620.80

Figure 3.10.99: Distribution of Home TWA by Block Type

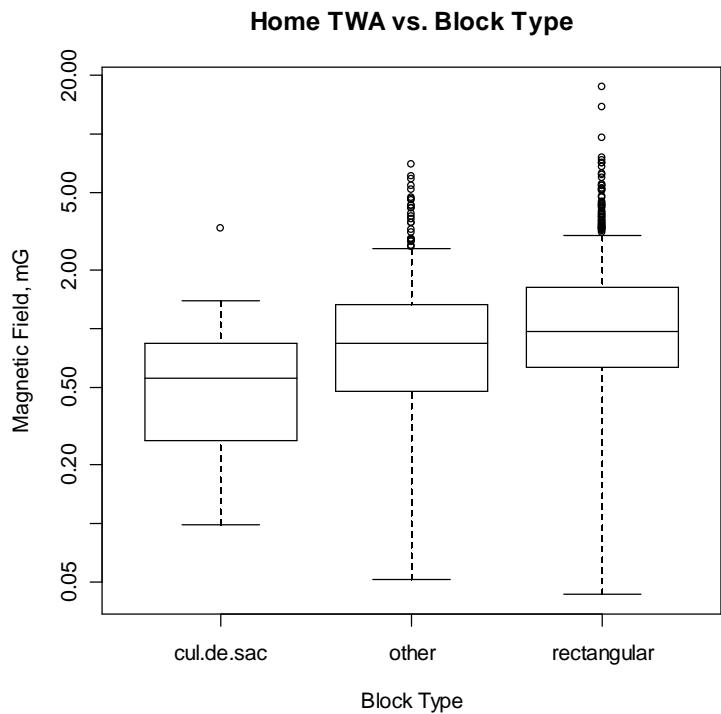


Table 3.10.99: Summary measures for Home TWA by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	0.67	0.60	0.51	0.56	1.28	2.76	3.28
other	315	1.14	1.05	0.84	0.84	3.47	5.35	6.91
rectangular	533	1.44	1.52	1.04	0.97	4.06	7.06	17.22

Figure 3.10.100: Distribution of Home Harmonic TWA by Block Type

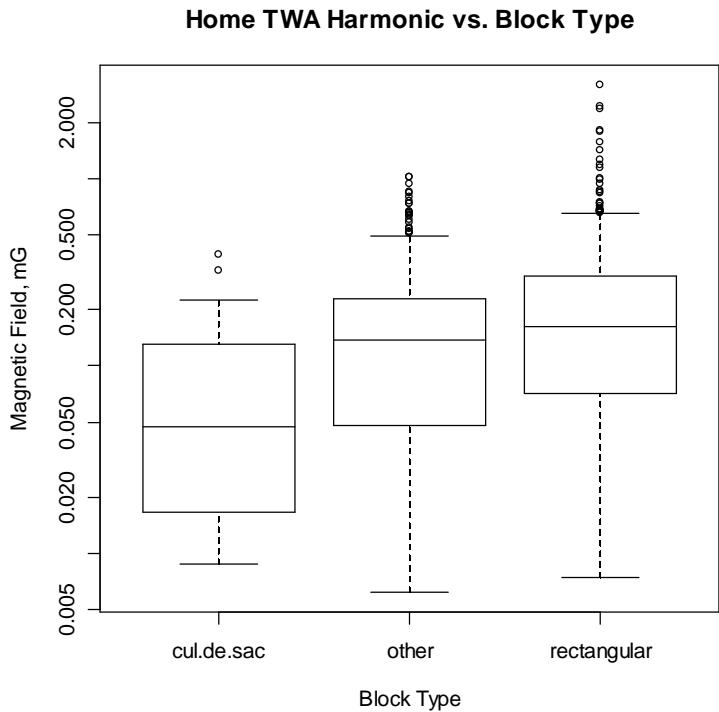


Table 3.10.100: Summary measures for Home Harmonic TWA by Block Type

	n	mean	std.dev	geo.means	p50	p95	p99	max
cul.de.sac	29	0.09	0.10	0.05	0.05	0.28	0.37	0.39
other	315	0.18	0.19	0.11	0.14	0.61	0.85	1.02
rectangular	533	0.23	0.29	0.14	0.16	0.66	1.50	3.12

Figure 3.10.101: Distribution of Home Rate-of-Change Metric (RCM) by Block Type

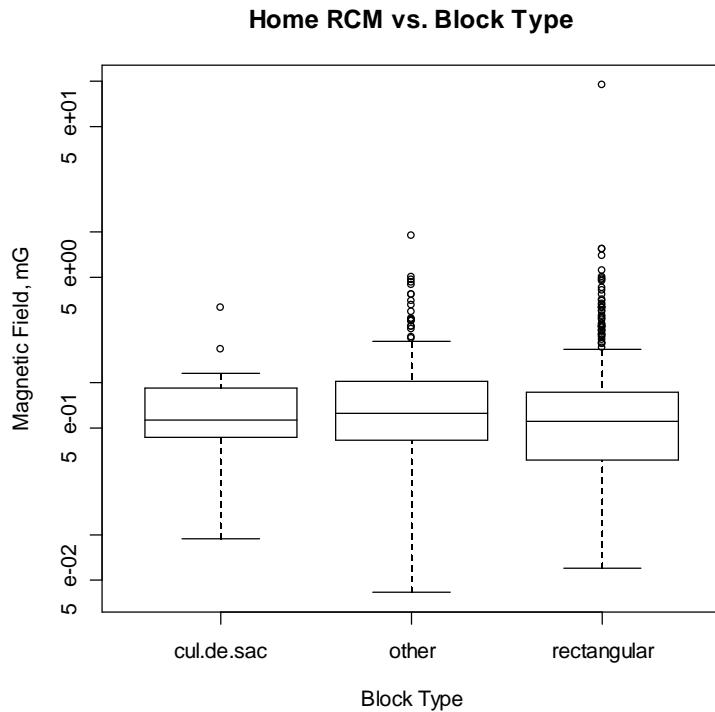


Table 3.10.101: Summary measures for Home Rate-of-Change Metric (RCM) by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	0.73	0.58	0.57	0.57	1.47	2.72	3.13
other	315	0.88	0.91	0.63	0.63	2.40	4.56	9.48
rectangular	533	0.97	4.07	0.56	0.55	2.38	4.97	92.40

Figure 3.10.102: Distribution of Home Dimensionless Rate-of-Change Metric (RCM*) by Block Type

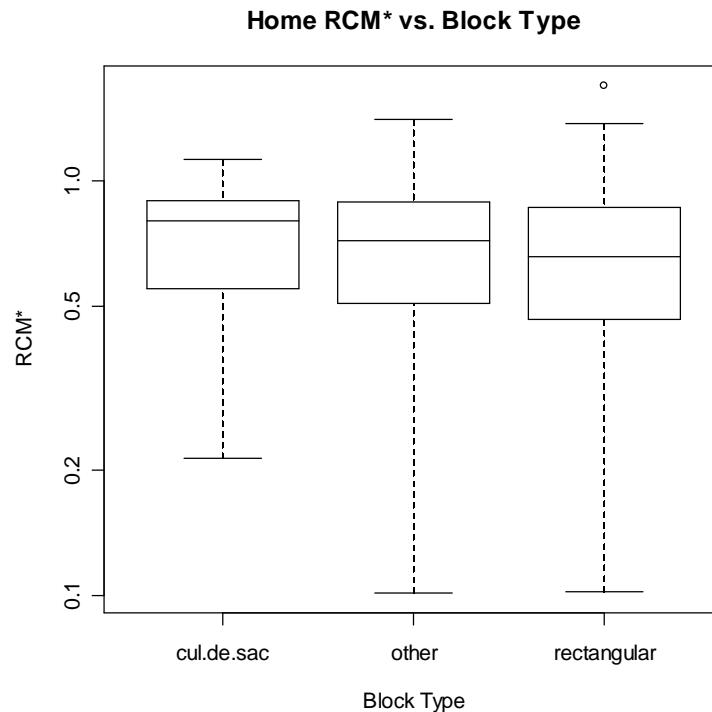


Table 3.10.102: Summary measures for Home Dimensionless Rate-of-Change Metric (RCM*) by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	0.728	0.236	0.683	0.798	1.013	1.094	1.124
other	315	0.710	0.269	0.651	0.713	1.148	1.325	1.404
rectangula r	533	0.672	0.279	0.607	0.653	1.161	1.319	1.684

Figure 3.10.103: Distribution of Home Sudden Field Changes Exceeding 2.5 mG by Block Type

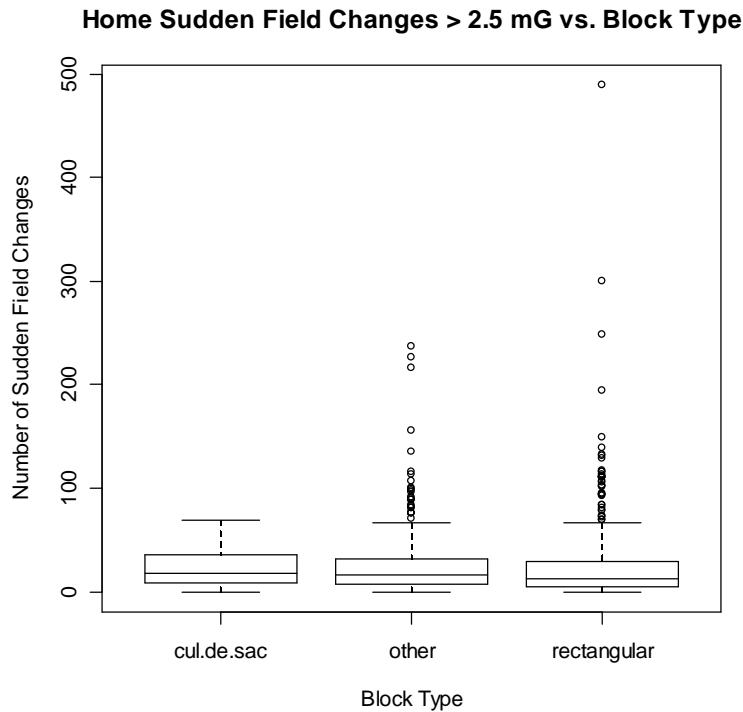


Table 3.10.103: Summary measures for Home Sudden Field Changes Exceeding 2.5 mG by Block Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
cul.de.sac	29	24	21	NA	17	67	69	69
other	315	26	32	NA	16	85	152	237
rectangular	533	24	38	NA	12	92	137	489

Figure 3.10.104: Distribution of Home Sudden Field Changes Exceeding 5 mG by Block Type

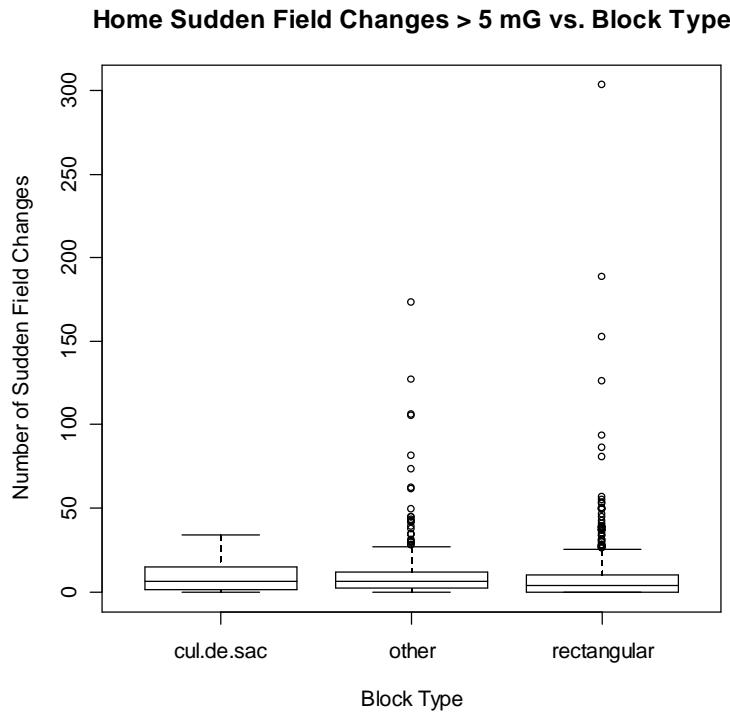


Table 3.10.104: Summary measures for Home Sudden Field Changes Exceeding 5 mG by Block Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
cul.de.sac	29	9	10	NA	6	29	33	34
other	315	11	18	NA	6	38	102	173
rectangular	533	9	21	NA	4	36	84	303

Figure 3.10.105: Distribution of Home Longest Period Exceeding 4 mG by Block Type

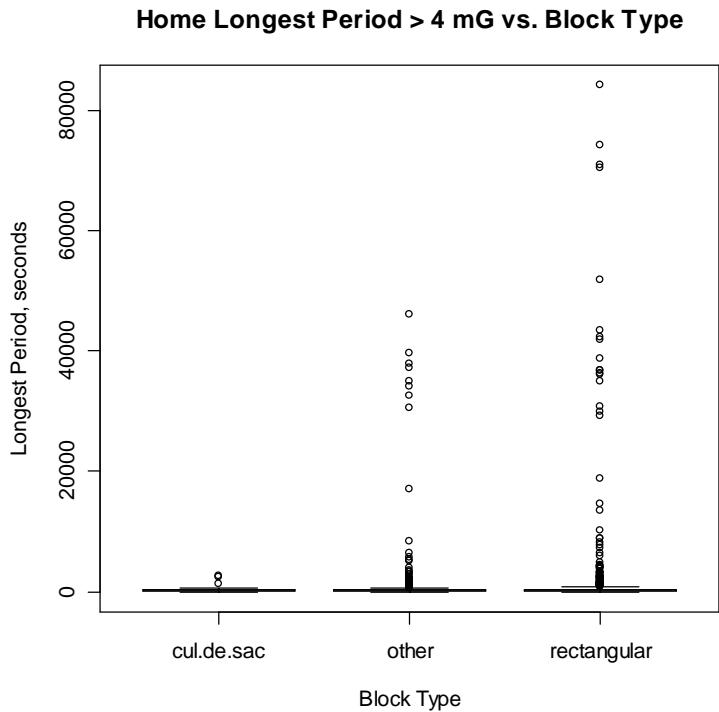


Table 3.10.105: Summary measures for Home Longest Period Exceeding 4 mG by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	327	661	NA	70	1950	2568	2630
other	315	1365	5901	NA	60	3350	36830	46150
rectangular	533	2028	8757	NA	50	6038	42938	84110

Figure 3.10.106: Distribution of Home Longest Period Exceeding 16 mG by Block Type

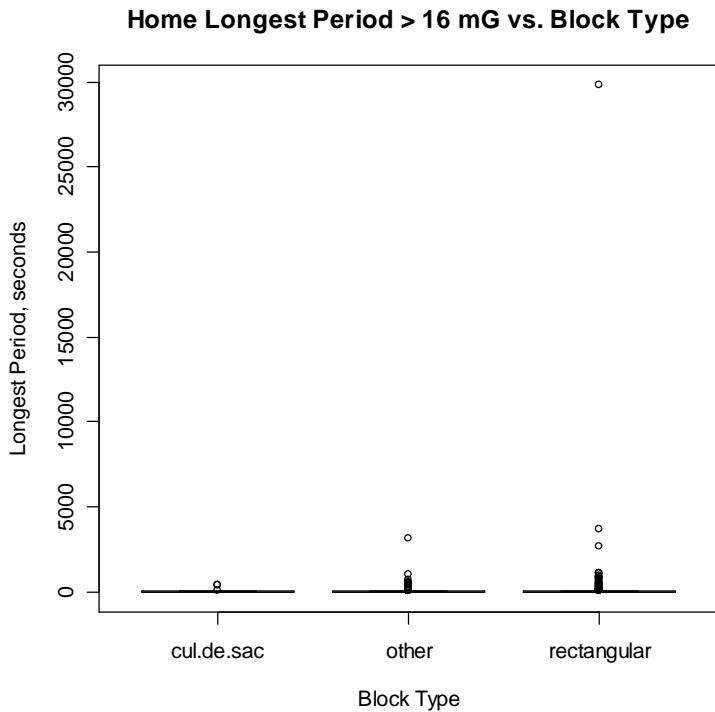


Table 3.10.106: Summary measures for Home Longest Period Exceeding 16 mG by Block Type

	n	mean	std.dev	geo.means	p50	p95	p99	max
cul.de.sac	29	29	92	NA	0	216	370	390
other	315	35	197	NA	0	103	533	3110
rectangular	533	102	1309	NA	0	202	1015	29770

Figure 3.10.107: Distribution of Home Fraction of Measurements Exceeding 4 mG by Block Type

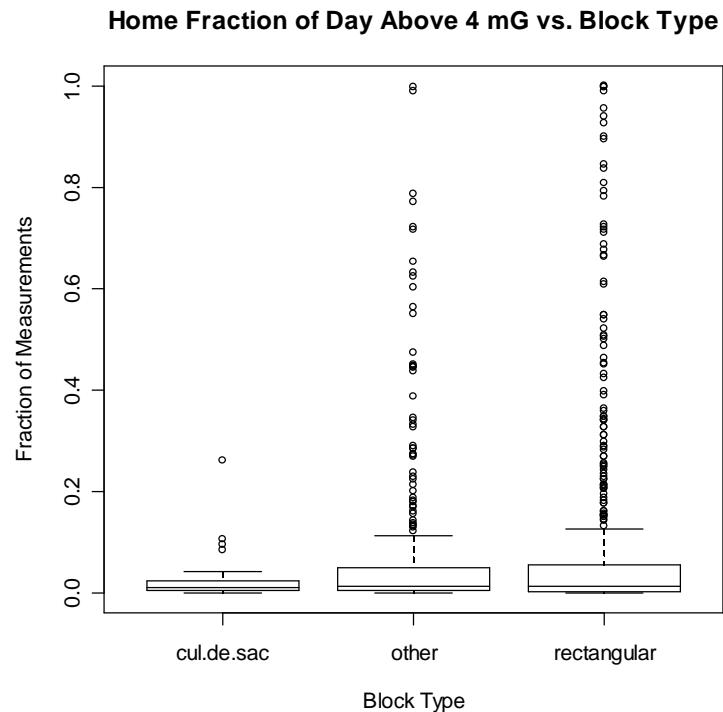


Table 3.10.107: Summary measures for Home Fraction of Measurements Exceeding 4 mG by Block Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
cul.de.sac	29	0.0288	0.0527	NA	0.0099	0.1004	0.2172	0.2609
other	315	0.0722	0.1580	NA	0.0111	0.4434	0.7631	0.9972
rectangula r	533	0.0866	0.1889	NA	0.0124	0.5281	0.9361	0.9991

Figure 3.10.108: Distribution of Home Fraction of Measurements Exceeding 16 mG by Block Type

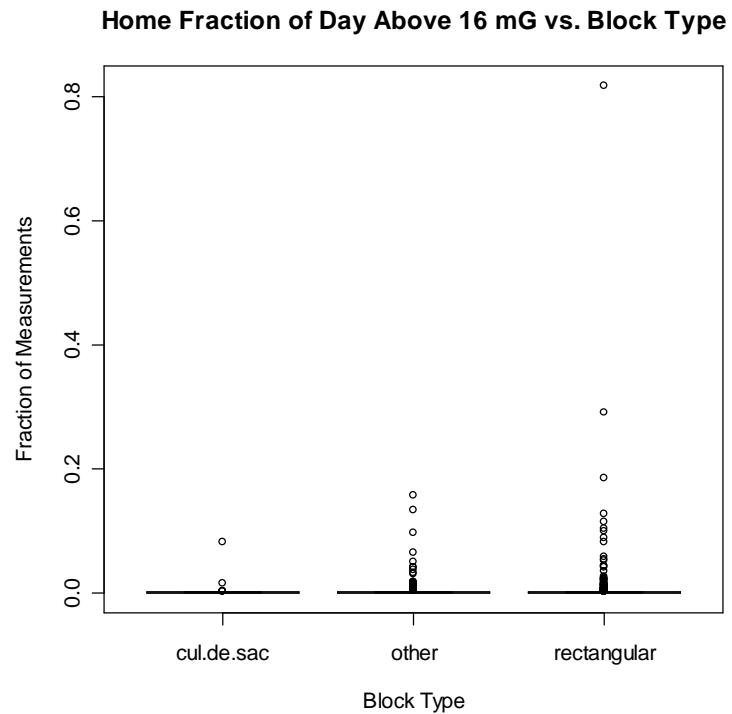


Table 3.10.108: Summary measures for Home Fraction of Measurements Exceeding 16 mG by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	0.0035	0.0151	NA	0.0000	0.0085	0.0620	0.0809
other	315	0.0033	0.0142	NA	0.0000	0.0132	0.0608	0.1560
rectangula r	533	0.0052	0.0401	NA	0.0000	0.0132	0.1016	0.8160

Figure 3.10.109: Distribution of Home 90th Percentile by Block Type

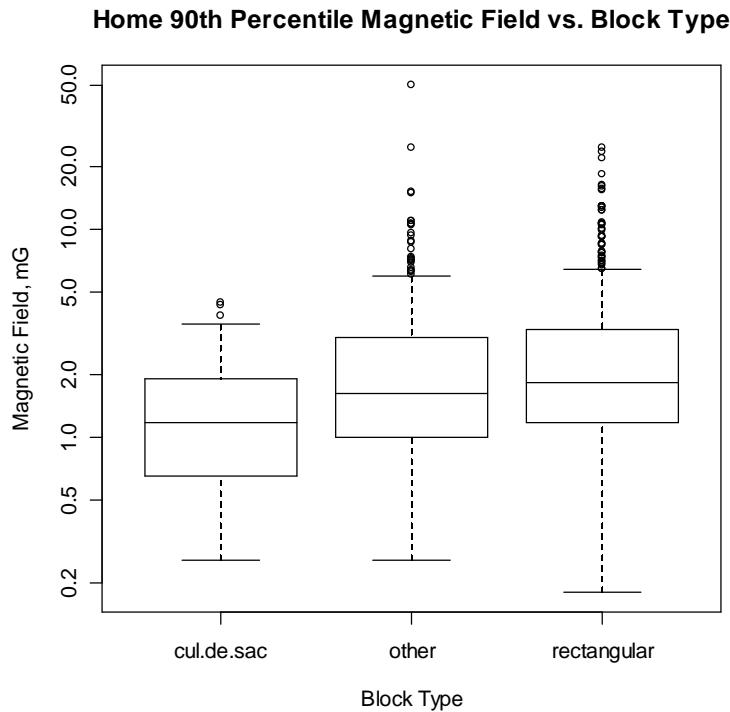


Table 3.10.109: Summary measures for Home 90th Percentile by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	1.57	1.18	1.20	1.18	4.12	4.40	4.43
other	315	2.66	3.72	1.79	1.63	7.21	14.35	49.30
rectangular	533	2.85	3.05	2.02	1.83	8.50	15.97	24.90

Figure 3.10.110: Distribution of Home 95th Percentile by Block Type

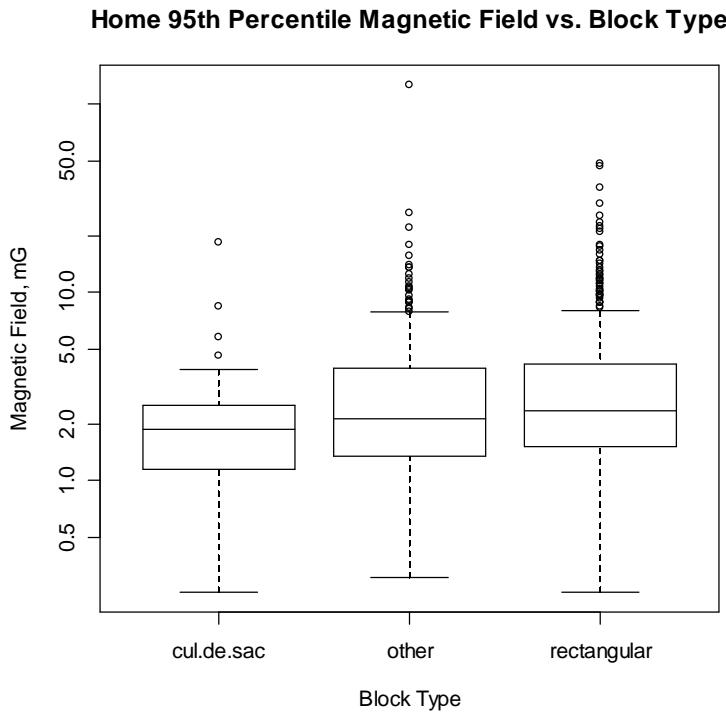


Table 3.10.110: Summary measures for Home 95th Percentile by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	2.75	3.45	1.83	1.87	7.36	15.54	18.30
other	315	3.63	7.59	2.36	2.12	9.22	17.42	125.30
rectangular	533	3.70	4.66	2.57	2.34	10.86	23.18	48.10

Figure 3.10.111: Distribution of Home 99th Percentile by Block Type

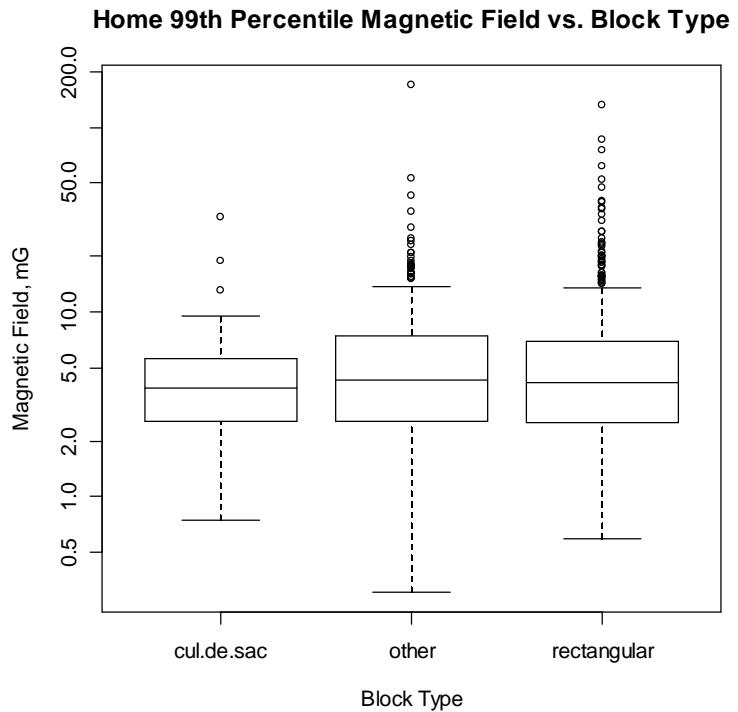


Table 3.10.111: Summary measures for Home 99th Percentile by Block Type

	n	mean	std.dev	geo.means	p50	p95	p99	max
cul.de.sac	29	5.54	6.45	3.80	3.87	16.42	28.78	32.70
other	315	6.64	10.92	4.51	4.28	17.50	34.00	168.10
rectangular	533	6.57	9.69	4.40	4.17	18.58	44.60	132.30

Figure 3.10.112: Distribution of Home Maximum by Block Type

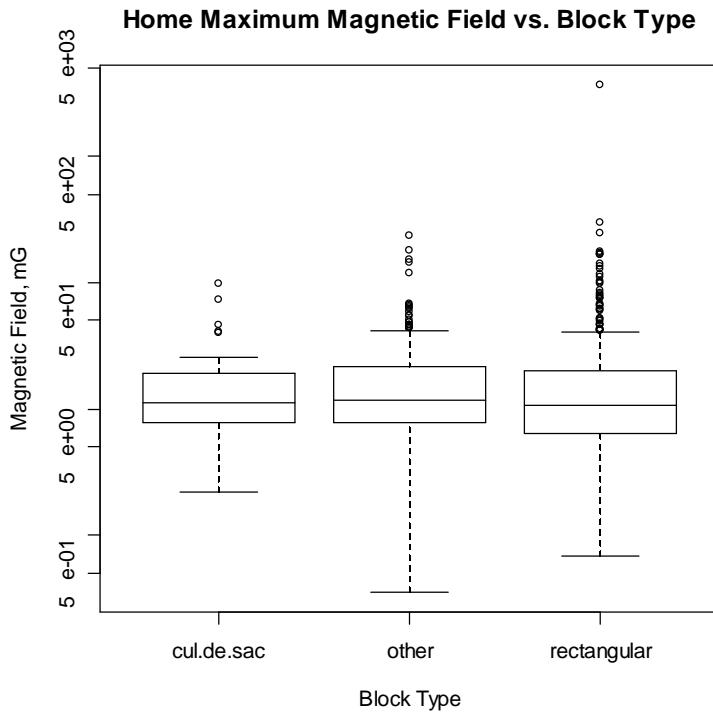


Table 3.10.112: Summary measures for Home Maximum by Block Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
cul.de.sac	29	18.85	21.65	12.07	11.07	62.14	90.24	96.90
other	315	18.84	23.47	12.50	11.81	46.82	140.14	235.20
rectangular	533	25.70	158.58	11.62	10.59	62.98	166.87	3620.80

Figure 3.10.113: Distribution of Home TWA by Street Type

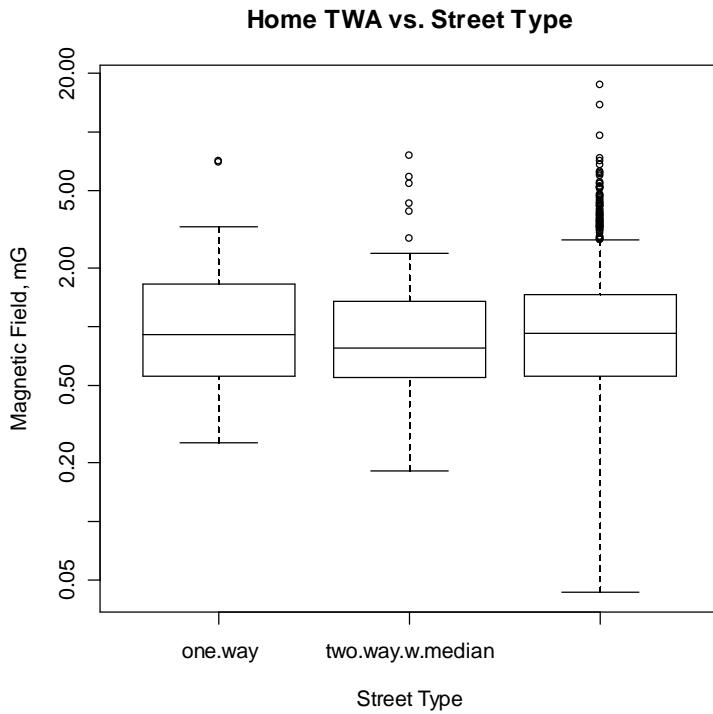


Table 3.10.113: Summary measures for Home TWA by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	1.37	1.41	1.00	0.91	3.20	6.97	7.02
two.way.w.media n	49	1.35	1.54	0.91	0.77	4.96	6.70	7.52
two.way.wo.medi an	789	1.29	1.34	0.94	0.92	3.69	6.04	17.22

Figure 3.10.114: Distribution of Home Harmonic TWA by Street Type

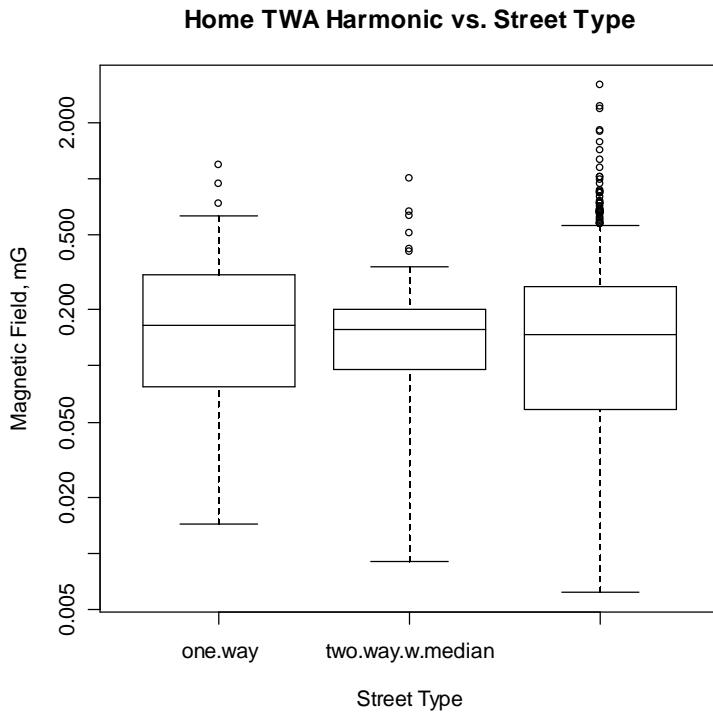


Table 3.10.114: Summary measures for Home Harmonic TWA by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	0.24	0.25	0.15	0.16	0.72	1.07	1.17
two.way.w.media n	49	0.19	0.19	0.12	0.16	0.58	0.84	1.00
two.way.wo.medi an	789	0.21	0.26	0.12	0.15	0.65	1.15	3.12

Figure 3.10.115: Distribution of Home Rate-of-Change Metric (RCM) by Street Type

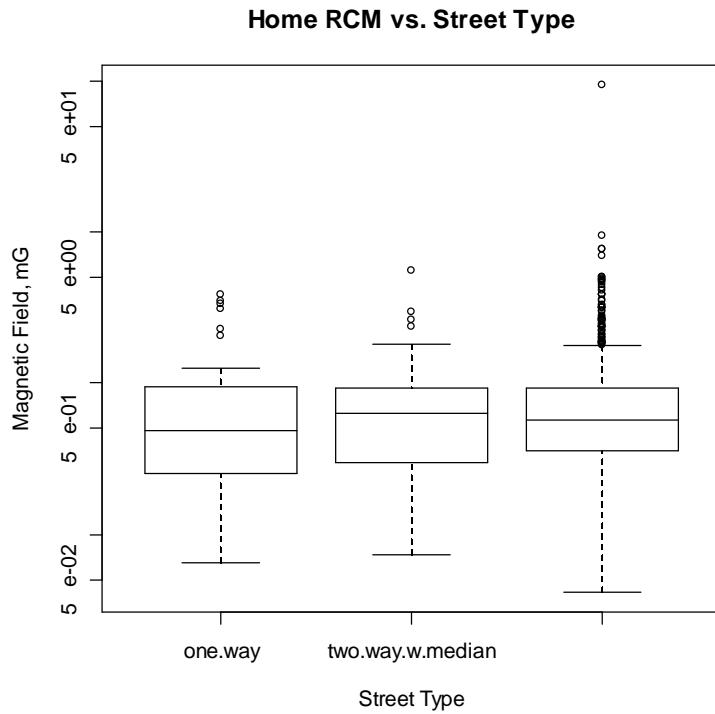


Table 3.10.115: Summary measures for Home Rate-of-Change Metric (RCM) by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	0.84	0.96	0.51	0.49	3.28	3.68	3.83
two.way.w.media n	49	0.90	0.95	0.60	0.63	2.53	4.31	5.57
two.way.wo.medi an	789	0.94	3.38	0.59	0.57	2.36	4.82	92.40

Figure 3.10.116: Distribution of Home Dimensionless Rate-of-Change Metric (RCM*) by Street Type

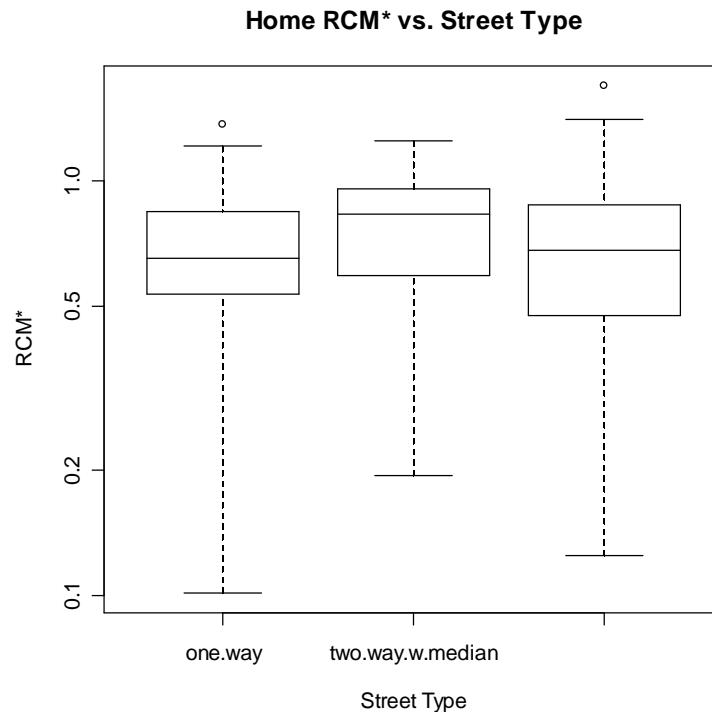


Table 3.10.116: Summary measures for Home Dimensionless Rate-of-Change Metric (RCM*) by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	0.660	0.280	0.581	0.652	1.030	1.301	1.366
two.way.w.media n	49	0.771	0.264	0.715	0.827	1.121	1.240	1.244
two.way.wo.media n	789	0.686	0.275	0.625	0.678	1.157	1.327	1.684

Figure 3.10.117: Distribution of Home Sudden Field Changes Exceeding 2.5 mG by Street Type

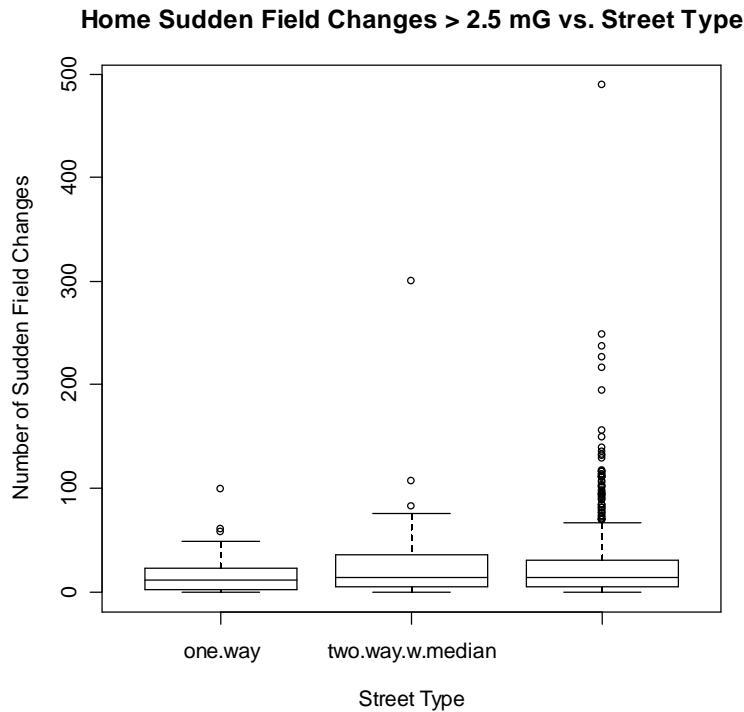


Table 3.10.117: Summary measures for Home Sudden Field Changes Exceeding 2.5 mG by Street Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
one.way	44	17	21	NA	11	56	82	99
two.way.w.media n	49	29	47	NA	14	79	207	300
two.way.wo.medi an	789	25	35	NA	14	88	140	489

Figure 3.10.118: Distribution of Home Sudden Field Changes Exceeding 5 mG by Street Type

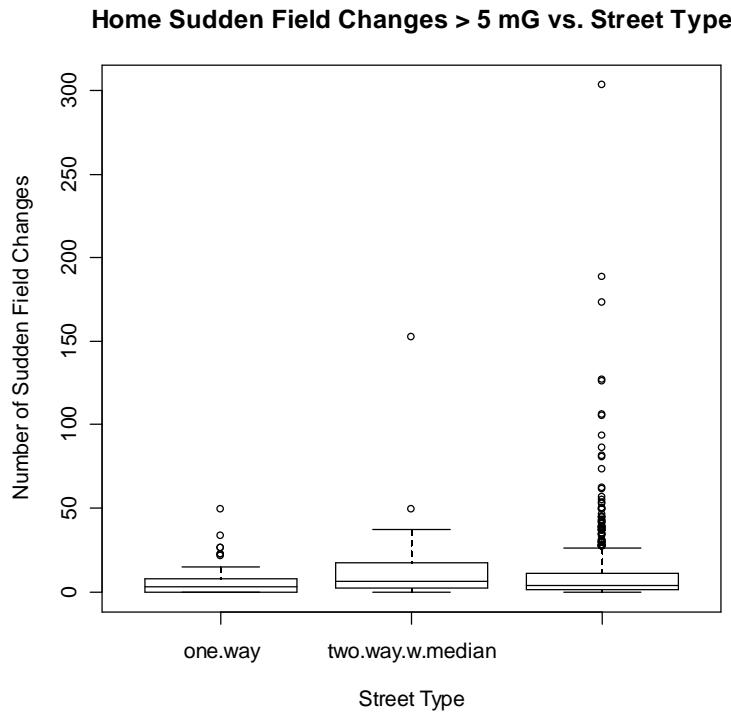


Table 3.10.118: Summary measures for Home Sudden Field Changes Exceeding 5 mG by Street Type

	n	mean	std.dev	geo.me an	p50	p95	p99	max
one.way	44	7	11	NA	3	26	42	49
two.way.w.media n	49	13	23	NA	6	36	103	152
two.way.wo.medi an	789	10	20	NA	4	37	87	303

Figure 3.10.119: Distribution of Home Longest Period Exceeding 4 mG by Street Type

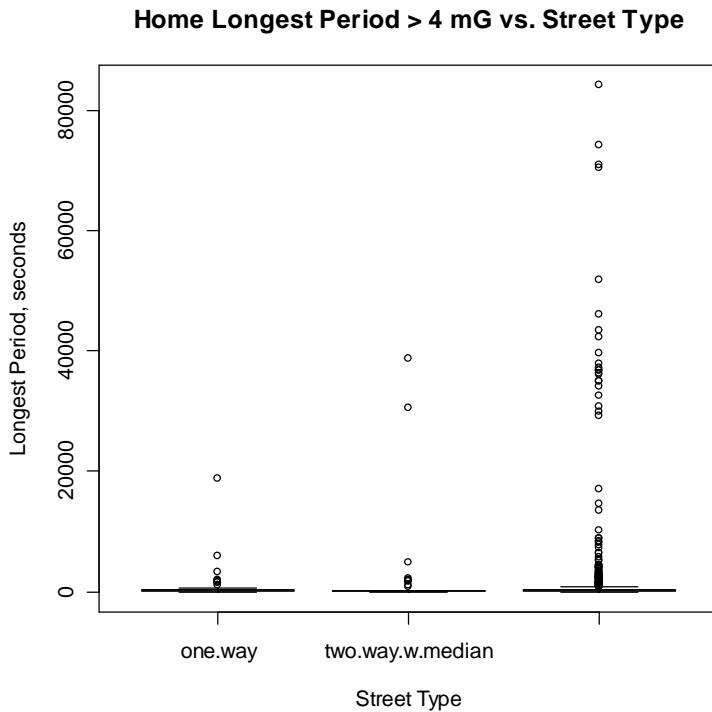


Table 3.10.119: Summary measures for Home Longest Period Exceeding 4 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	857	2949	NA	50	2925	13197	18710
two.way.w.media n	49	1736	6966	NA	50	3746	34842	38740
two.way.wo.medi an	789	1719	7769	NA	60	4152	39840	84110

Figure 3.10.120: Distribution of Home Longest Period Exceeding 16 mG by Street Type

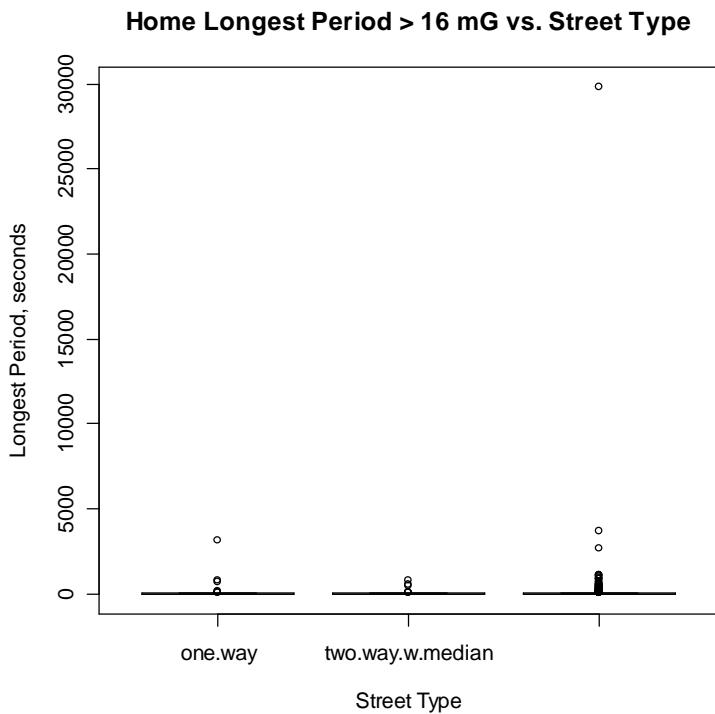


Table 3.10.120: Summary measures for Home Longest Period Exceeding 16 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	111	485	NA	0	571	2087	3110
two.way.w.media n	49	40	138	NA	0	282	628	710
two.way.wo.medi an	789	75	1077	NA	0	130	832	29770

Figure 3.10.121: Distribution of Home Fraction of Measurements Exceeding 4 mG by Street Type

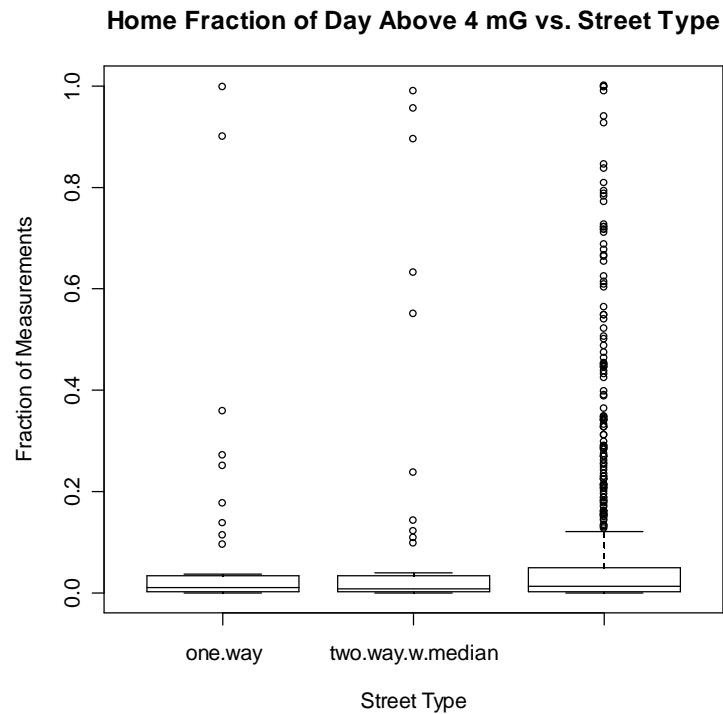


Table 3.10.121: Summary measures for Home Fraction of Measurements Exceeding 4 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	0.0823	0.2072	NA	0.0094	0.3441	0.9551	0.9972
two.way.w.media n	49	0.1038	0.2493	NA	0.0074	0.7890	0.9733	0.9904
two.way.wo.media n	789	0.0767	0.1671	NA	0.0118	0.4504	0.8110	0.9991

Figure 3.10.122: Distribution of Home Fraction of Measurements Exceeding 16 mG by Street Type

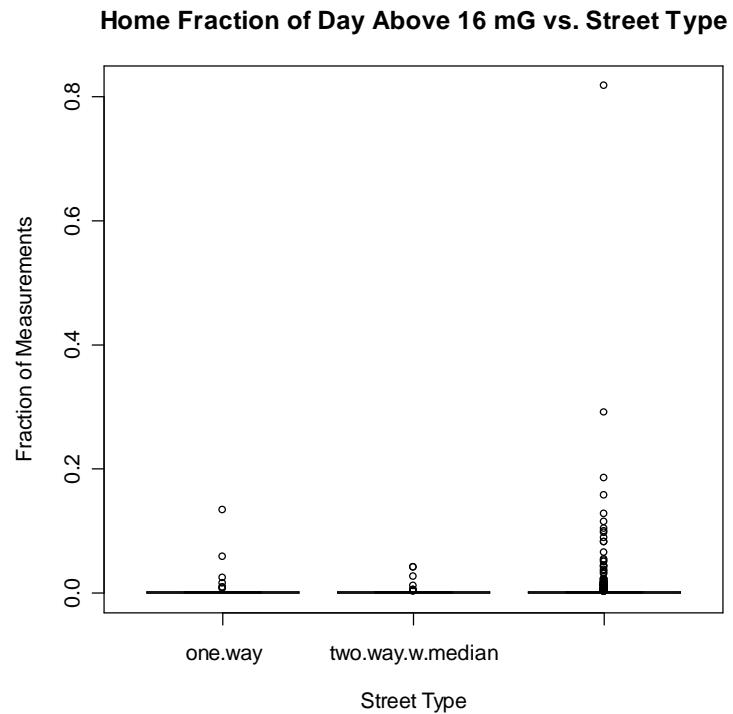


Table 3.10.122: Summary measures for Home Fraction of Measurements Exceeding 16 mG by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	0.0058	0.0217	NA	0.0000	0.0216	0.0999	0.1324
two.way.w.media n	49	0.0027	0.0087	NA	0.0000	0.0187	0.0400	0.0401
two.way.wo.media n	789	0.0045	0.0338	NA	0.0000	0.0130	0.0960	0.8160

Figure 3.10.123: Distribution of Home 90th Percentile by Street Type

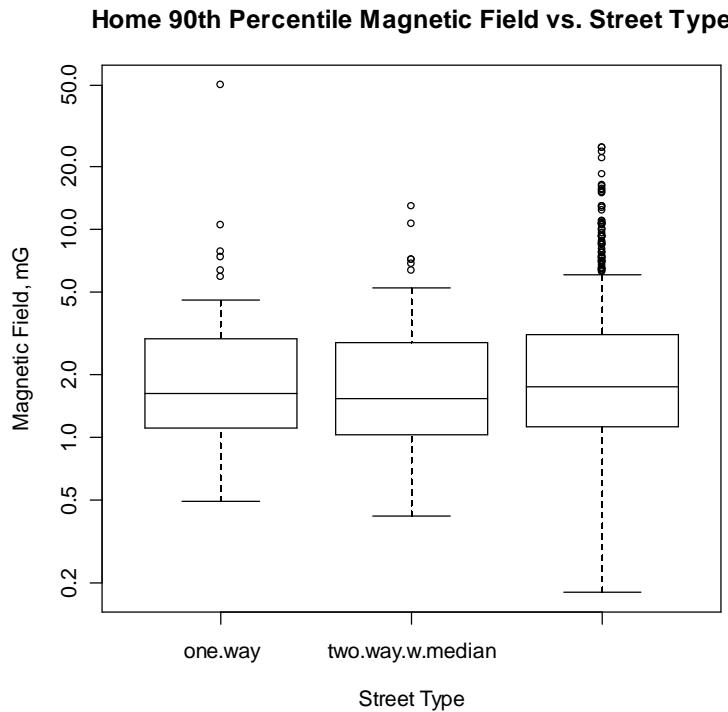


Table 3.10.123: Summary measures for Home 90th Percentile by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	3.54	7.38	2.01	1.62	7.73	32.62	49.30
two.way.w.media n	49	2.50	2.65	1.72	1.53	7.18	11.86	12.90
two.way.wo.medi an	789	2.69	2.89	1.90	1.76	7.80	15.52	24.90

Figure 3.10.124: Distribution of Home 95th Percentile by Street Type

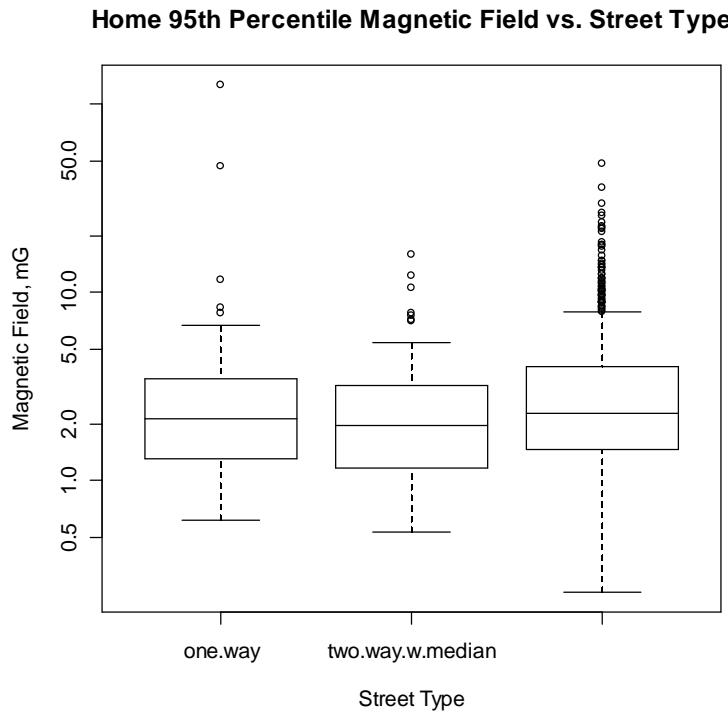


Table 3.10.124: Summary measures for Home 95th Percentile by Street Type

	n	mean	std.dev	geo.means	p50	p95	p99	max
one.way	44	6.59	19.60	2.59	2.14	11.19	91.50	125.30
two.way.w.media n	49	3.10	3.15	2.19	1.96	9.38	14.12	15.90
two.way.wo.median	789	3.49	3.98	2.46	2.28	10.11	21.55	48.10

Figure 3.10.125: Distribution of Home 99th Percentile by Street Type

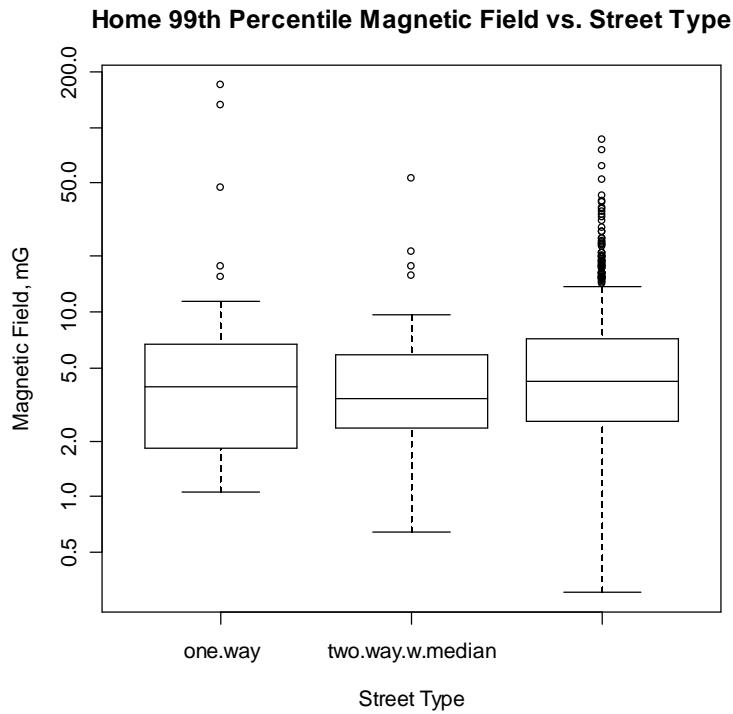


Table 3.10.125: Summary measures for Home 99th Percentile by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	12.13	31.59	4.32	3.92	42.49	152.71	168.10
two.way.w.media n	49	5.90	8.00	3.91	3.41	16.78	37.64	52.90
two.way.wo.medi an	789	6.27	7.23	4.44	4.21	17.90	36.02	85.90

Figure 3.10.126: Distribution of Home Maximum by Street Type

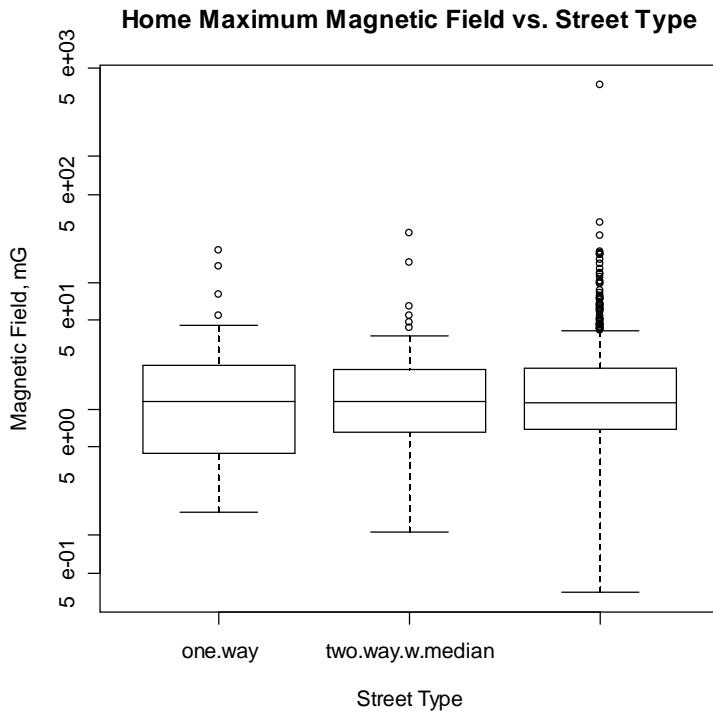


Table 3.10.126: Summary measures for Home Maximum by Street Type

	n	mean	std.dev	geo.me n	p50	p95	p99	max
one.way	44	21.48	33.79	11.01	11.48	75.80	159.58	179.10
two.way.w.media n	49	22.57	39.68	12.08	11.43	60.38	196.27	244.80
two.way.wo.medi an	789	23.19	130.66	12.03	11.17	53.02	153.08	3620.80

Figure 3.10.127: Distribution of Home TWA by Proximity to Train

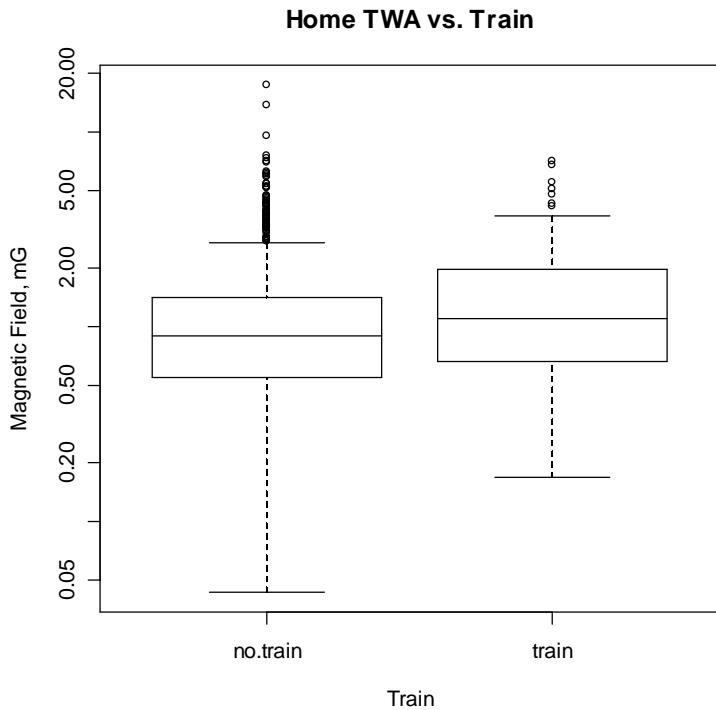


Table 3.10.127: Summary measures for Home TWA by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	1.27	1.33	0.92	0.89	3.65	6.15	17.22
train	72	1.64	1.51	1.16	1.09	4.93	6.85	7.02

Figure 3.10.128: Distribution of Home Harmonic TWA by Proximity to Train

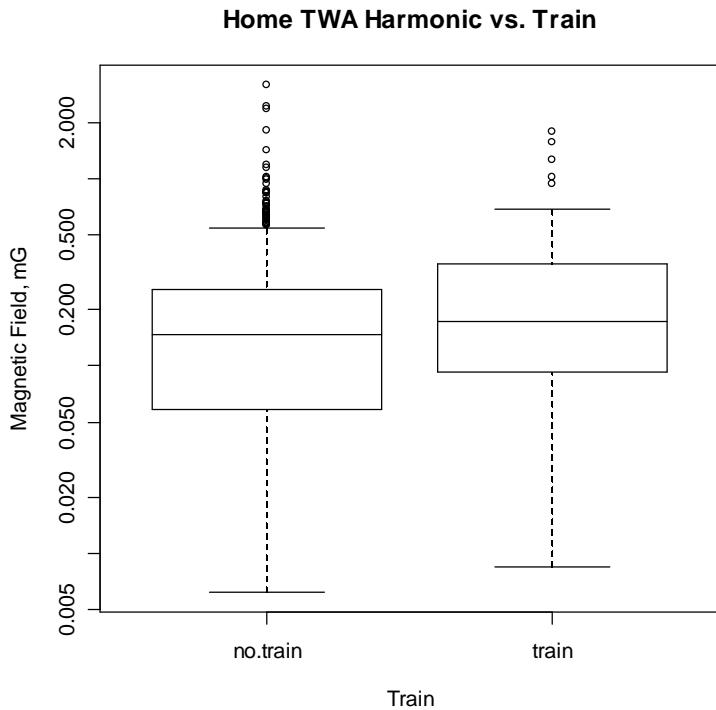


Table 3.10.128: Summary measures for Home Harmonic TWA by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	0.20	0.25	0.12	0.15	0.64	1.00	3.12
train	72	0.28	0.33	0.16	0.17	0.96	1.61	1.77

Figure 3.10.129: Distribution of Home Rate-of-Change Metric (RCM) by Proximity to Train

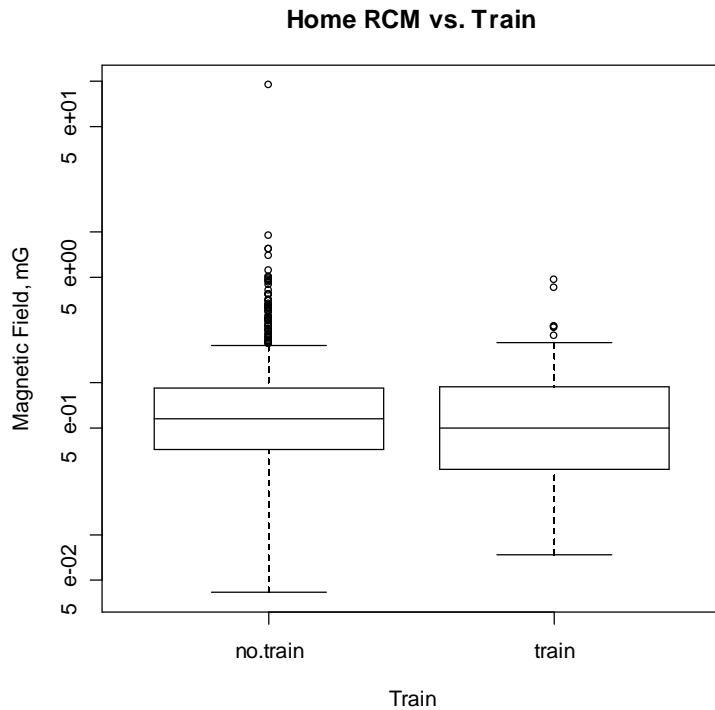


Table 3.10.129: Summary measures for Home Rate-of-Change Metric (RCM) by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	0.95	3.34	0.59	0.58	2.55	4.89	92.40
train	72	0.79	0.85	0.52	0.50	2.33	4.44	4.81

Figure 3.10.130: Distribution of Home Dimensionless Rate-of-Change Metric (RCM*) by Proximity to Train

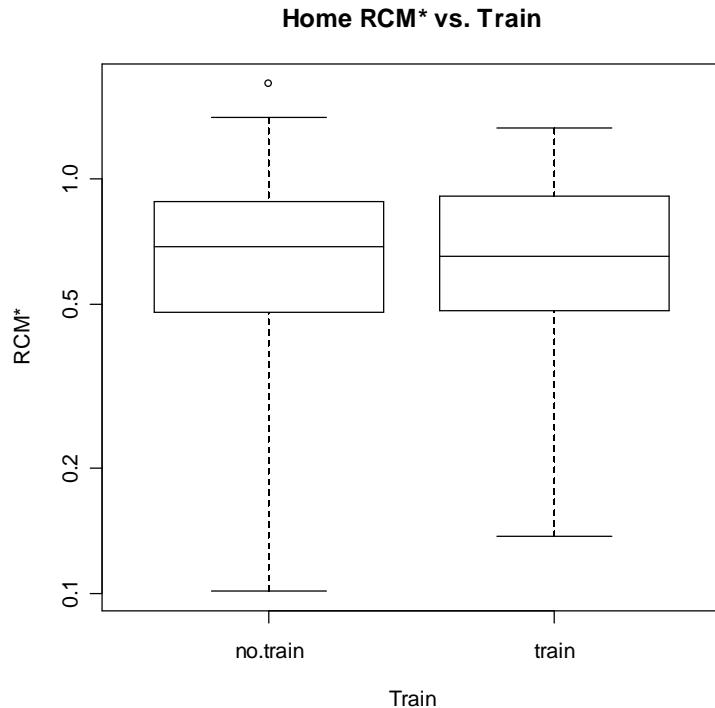


Table 3.10.130: Summary measures for Home Dimensionless Rate-of-Change Metric (RCM*) by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	0.691	0.276	0.627	0.685	1.159	1.327	1.684
train	72	0.681	0.266	0.623	0.653	1.069	1.219	1.327

Figure 3.10.131: Distribution of Home Sudden Field Changes Exceeding 2.5 mG by Proximity to Train

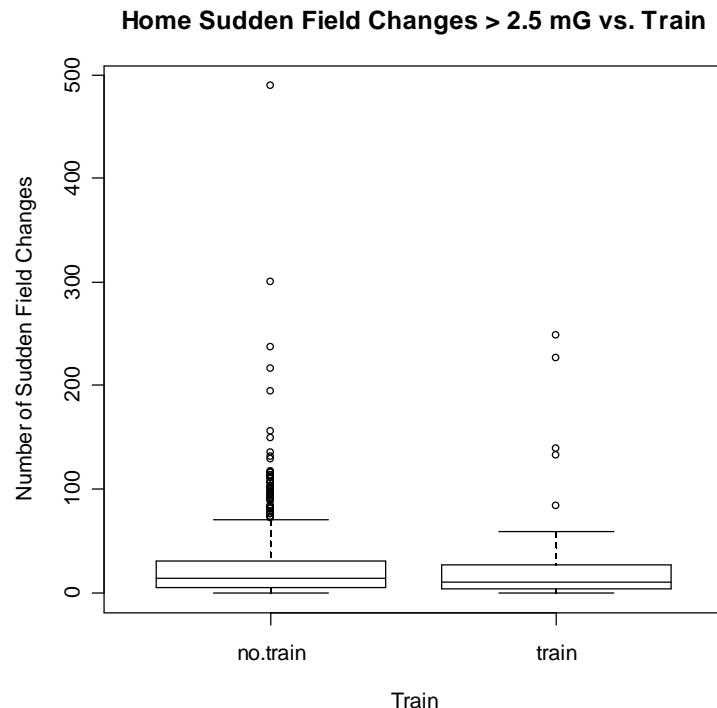


Table 3.10.131: Summary measures for Home Sudden Field Changes Exceeding 2.5 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	24	34	NA	14	83	131	489
train	72	25	45	NA	10	105	233	249

Figure 3.10.132: Distribution of Home Sudden Field Changes Exceeding 5 mG by Proximity to Train

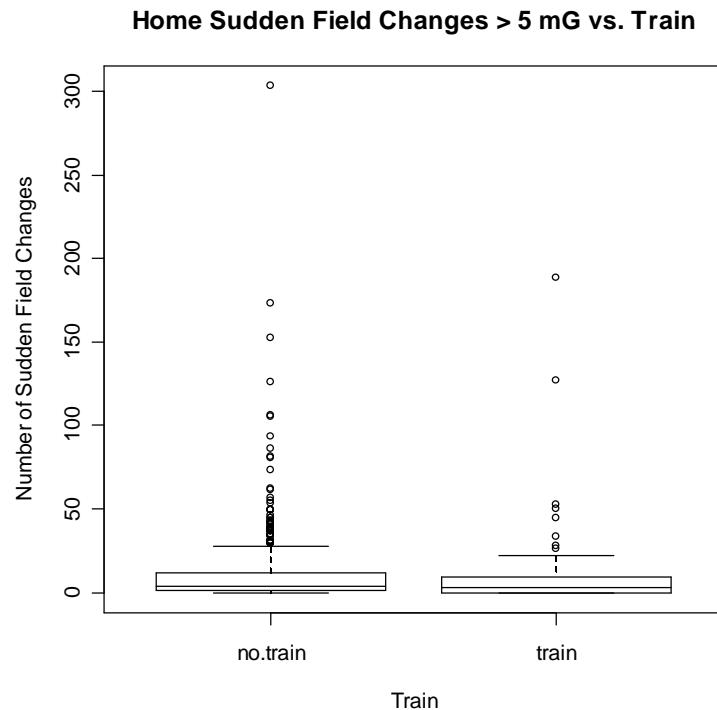


Table 3.10.132: Summary measures for Home Sudden Field Changes Exceeding 5 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	10	19	NA	4	36	81	303
train	72	11	28	NA	3	47	145	188

Figure 3.10.133: Distribution of Home Longest Period Exceeding 4 mG by Proximity to Train

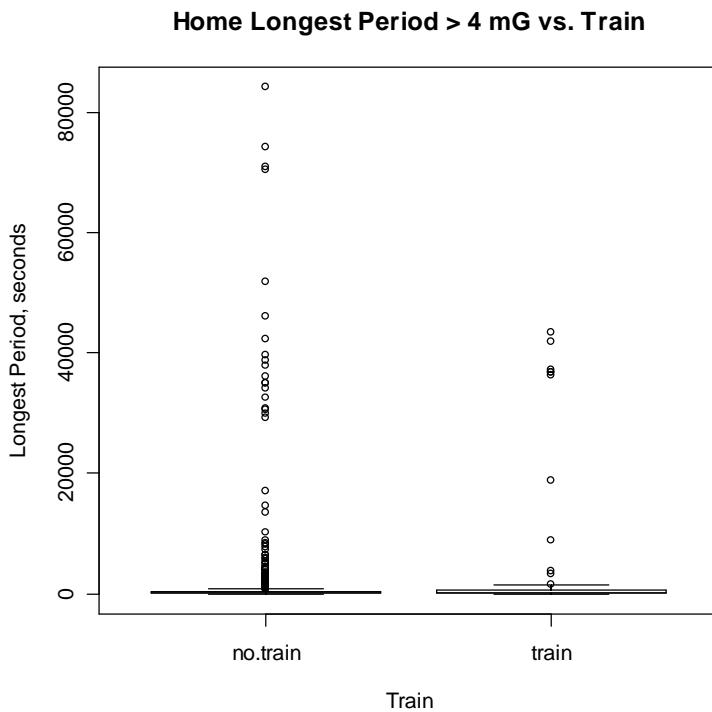


Table 3.10.133: Summary measures for Home Longest Period Exceeding 4 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	1530	7290	NA	60	3832	38644	84110
train	72	3849	10875	NA	50	36665	42197	43290

Figure 3.10.134: Distribution of Home Longest Period Exceeding 16 mG by Proximity to Train

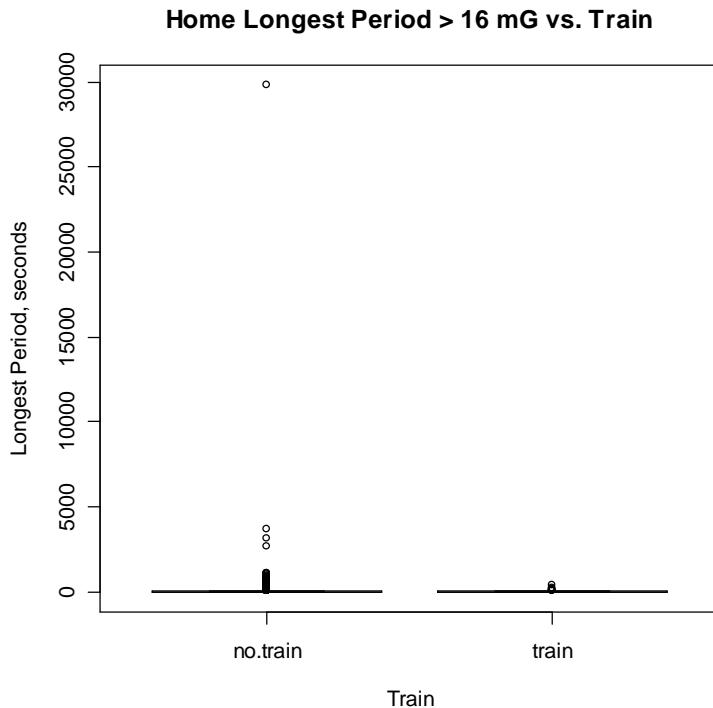


Table 3.10.134: Summary measures for Home Longest Period Exceeding 16 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	80	1067	NA	0	164	908	29770
train	72	17	52	NA	0	87	238	380

Figure 3.10.135: Distribution of Home Fraction of Measurements Exceeding 4 mG by Proximity to Train

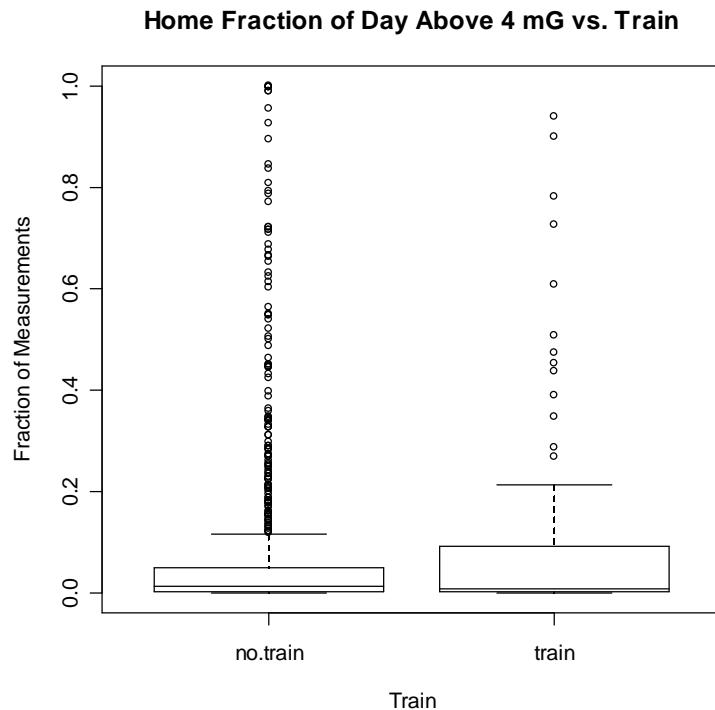


Table 3.10.135: Summary measures for Home Fraction of Measurements Exceeding 4 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	0.0754	0.1694	NA	0.0122	0.4475	0.8885	0.9991
train	72	0.1173	0.2268	NA	0.0074	0.6598	0.9114	0.9409

Figure 3.10.136: Distribution of Home Fraction of Measurements Exceeding 16 mG by Proximity to Train

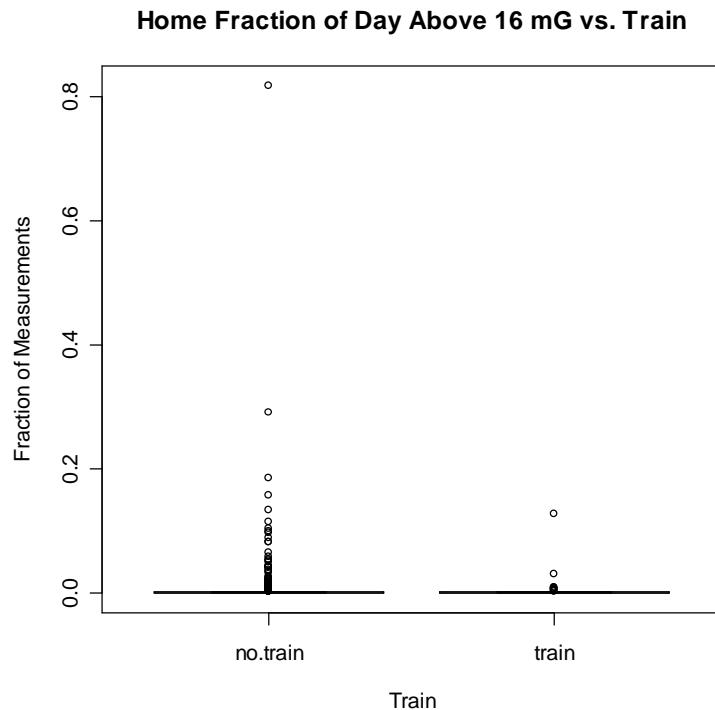


Table 3.10.136: Summary measures for Home Fraction of Measurements Exceeding 16 mG by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	0.0046	0.0334	NA	0.0000	0.0134	0.0946	0.8160
train	72	0.0029	0.0152	NA	0.0000	0.0064	0.0571	0.1259

Figure 3.10.137: Distribution of Home 90th Percentile by Proximity to Train

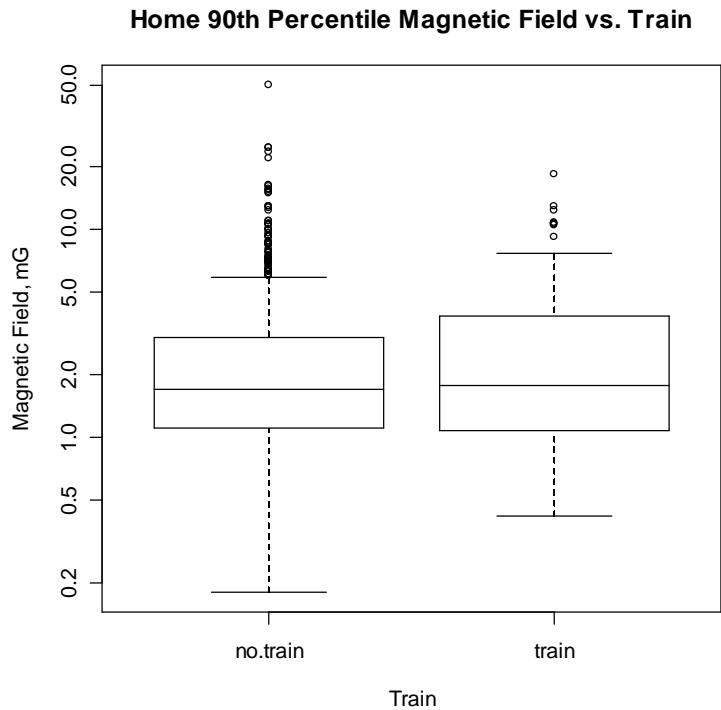


Table 3.10.137: Summary measures for Home 90th Percentile by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	2.68	3.23	1.87	1.71	7.37	15.48	49.30
train	72	3.29	3.55	2.14	1.77	10.74	14.47	18.30

Figure 3.10.138: Distribution of Home 95th Percentile by Proximity to Train

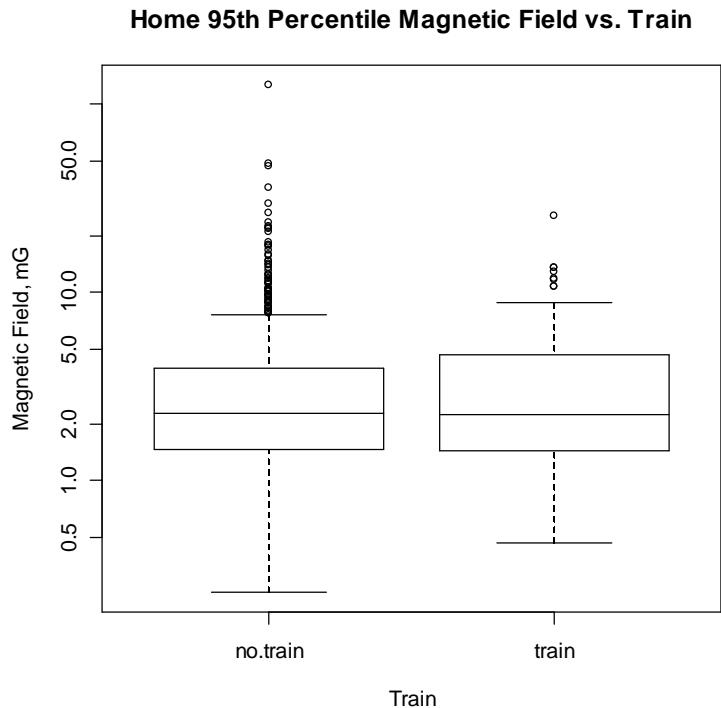


Table 3.10.138: Summary measures for Home 95th Percentile by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	3.61	5.95	2.44	2.26	9.68	21.85	125.30
train	72	3.85	4.21	2.56	2.24	12.35	16.92	25.30

Figure 3.10.139: Distribution of Home 99th Percentile by Proximity to Train

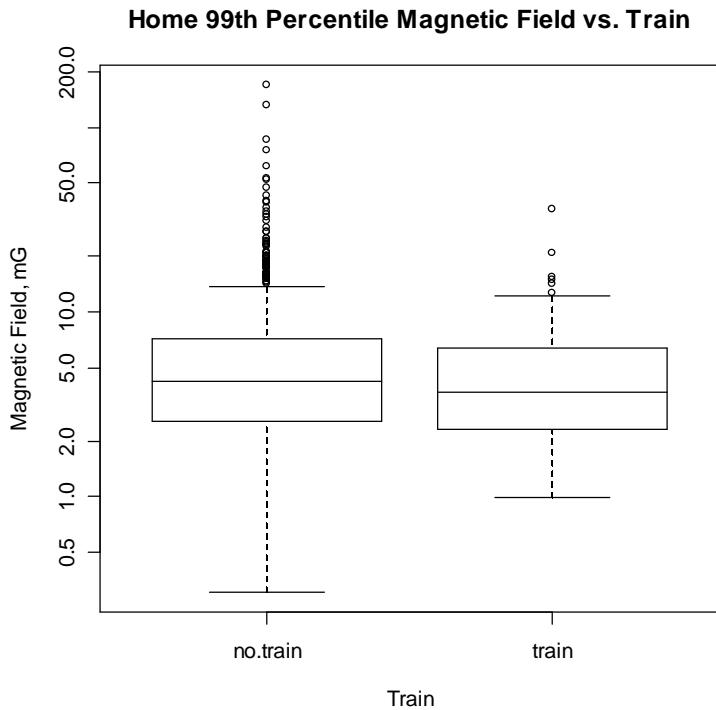


Table 3.10.139: Summary measures for Home 99th Percentile by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	max
no.train	813	6.64	10.32	4.46	4.21	18.38	42.34	168.10
train	72	5.40	5.42	3.87	3.68	14.46	25.11	35.90

Figure 3.10.140: Distribution of Home Maximum by Proximity to Train

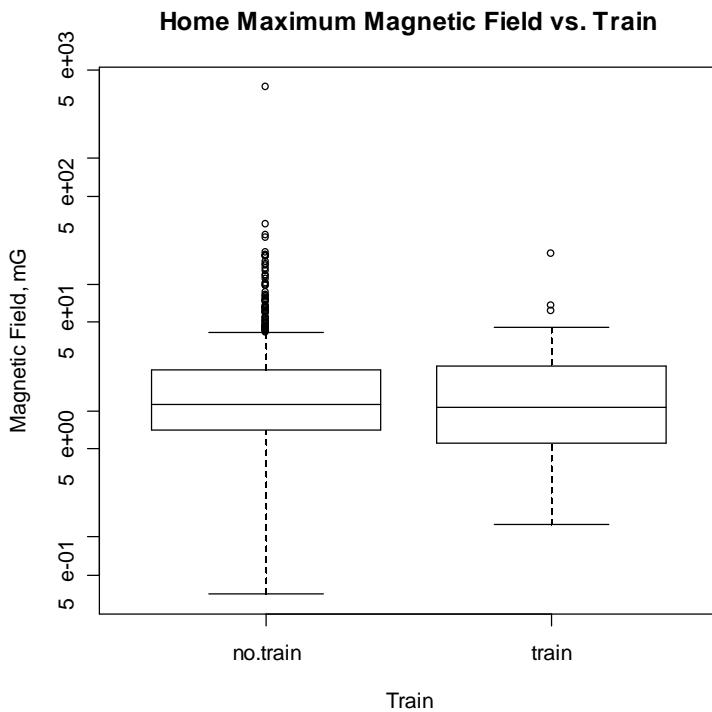


Table 3.10.140: Summary measures for Home Maximum by Proximity to Train

	n	mean	std.dev	geo.me n	p50	p95	p99	Max
no.train	813	23.49	129.12	12.10	11.23	59.46	163.12	3620.80
train	72	18.18	23.66	11.03	10.73	45.99	98.62	175.30

Table 3.10.141: Kruskal-Wallis test results for 24-hour 'matrix' measures by Wire-code Category

Parameter	Test statistic	Degrees of freedom	P-value
TWA	92.06	4	0.0000
Harmonic TWA	39.43	4	0.0000
RCM	3.82	4	0.4303
RCM*	27.59	4	0.0000
Sudden field changes > 2.5 mG	5.35	4	0.2530
Sudden field changes > 5 mG	5.43	4	0.2463
Longest period > 4 mG	39.48	4	0.0000
Longest period > 16 mG	8.37	4	0.0789
Fraction of measurements > 4 mG	47.46	4	0.0000
Fraction of measurements > 16 mG	9.60	4	0.0476
90th percentile	85.37	4	0.0000
95th percentile	66.79	4	0.0000
99 th percentile	22.30	4	0.0002
Maximum magnetic field	7.09	4	0.1312

Table 3.10.142: Kruskal-Wallis test results for 24-hour 'matrix' measures by Transformer Wiring

Parameter	Test statistic	Degrees of freedom	P-value
TWA	5.96	1	0.0146
Harmonic TWA	9.15	1	0.0025
RCM	1.80	1	0.1803
RCM*	0.13	1	0.7211
Sudden field changes > 2.5 mG	3.98	1	0.0460
Sudden field changes > 5 mG	3.66	1	0.0557
Longest period > 4 mG	1.00	1	0.3169
Longest period > 16 mG	0.07	1	0.7951
Fraction of measurements > 4 mG	4.01	1	0.0452
Fraction of measurements > 16 mG	0.24	1	0.6247
90 th percentile	3.85	1	0.0496
95 th percentile	4.36	1	0.0369
99 th percentile	4.58	1	0.0324
Maximum magnetic field	0.83	1	0.3623

Table 3.10.143: Kruskal-Wallis test results for 24-hour 'matrix' measures by Block Type

Parameter	Test statistic	Degrees of freedom	P-value
TWA	16.89	2	0.0002
Harmonic TWA	6.30	2	0.0429
RCM	8.75	2	0.0126
RCM*	0.78	2	0.6768
Sudden field changes > 2.5 mG	7.90	2	0.0193
Sudden field changes > 5 mG	6.92	2	0.0314
Longest period > 4 mG	4.61	2	0.0999
Longest period > 16 mG	5.87	2	0.0531
Fraction of measurements > 4 mG	10.79	2	0.0045
Fraction of measurements > 16 mG	8.62	2	0.0135
90th percentile	9.71	2	0.0078
95th percentile	13.79	2	0.0010
99th percentile	12.99	2	0.0015
Maximum magnetic field	6.68	2	0.0355

Table 3.10.144: Kruskal-Wallis test results for 24-hour 'matrix' measures by Street Type

Parameter	Test statistic	Degrees of freedom	P-value
TWA	4.32	2	0.1154
Harmonic TWA	1.16	2	0.5593
RCM	2.94	2	0.2294
RCM*	3.38	2	0.1849
Sudden field changes > 2.5 mG	1.26	2	0.5337
Sudden field changes > 5 mG	3.04	2	0.2187
Longest period > 4 mG	1.12	2	0.5711
Longest period > 16 mG	5.49	2	0.0643
Fraction of measurements > 4 mG	1.99	2	0.3700
Fraction of measurements > 16 mG	4.93	2	0.0850
90th percentile	1.48	2	0.4775
95th percentile	2.09	2	0.3511
99th percentile	1.41	2	0.4949
Maximum magnetic field	2.21	2	0.3310

Table 3.10.145: Kruskal-Wallis test results for 24-hour 'matrix' measures by Proximity to Train

Parameter	Test statistic	Degrees of freedom	P-value
TWA	8.25	1	0.0041
Harmonic TWA	4.24	1	0.0394
RCM	6.70	1	0.0096
RCM*	0.85	1	0.3570
Sudden field changes > 2.5 mG	1.45	1	0.2293
Sudden field changes > 5 mG	2.51	1	0.1130
Longest period > 4 mG	2.28	1	0.1315
Longest period > 16 mG	2.68	1	0.1015
Fraction of measurements > 4 mG	4.57	1	0.0324
Fraction of measurements > 16 mG	2.87	1	0.0902
90th percentile	4.10	1	0.0428
95th percentile	3.86	1	0.0494
99th percentile	2.83	1	0.0928
Maximum magnetic field	7.60	1	0.0058

Table 3.10.146: ANOVA test results for 24-hour 'matrix' measures by Wire-code Category

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	4	1.61E+02	4.03E+01	23.11	0.0000
Residuals	955	1.67E+03	1.75E+00	NA	NA
Harmonic TWA	4	3.58E+00	8.94E-01	6.58	0.0000
Residuals	955	1.30E+02	1.36E-01	NA	NA
RCM	4	2.47E+01	6.18E+00	0.65	0.6244
Residuals	955	9.03E+03	9.46E+00	NA	NA
RCM*	4	1.22E+00	3.05E-01	5.45	0.0002
Residuals	955	5.34E+01	5.59E-02	NA	NA
Sudden field changes > 2.5 mG	4	7.31E+04	1.83E+04	2.07	0.0824
Residuals	955	8.43E+06	8.82E+03	NA	NA
Sudden field changes > 5 mG	4	2.56E+04	6.40E+03	1.87	0.1140
Residuals	955	3.27E+06	3.42E+03	NA	NA
Longest period > 4 mG	4	1.78E+09	4.45E+08	14.20	0.0000
Residuals	955	2.99E+10	3.13E+07	NA	NA
Longest period > 16 mG	4	3.07E+06	7.68E+05	2.67	0.0312
Residuals	955	2.75E+08	2.88E+05	NA	NA
Fraction of measurements > 4 mG	4	1.07E+00	2.69E-01	18.45	0.0000
Residuals	955	1.39E+01	1.46E-02	NA	NA
Fraction of measurements > 16 mG	4	8.34E-03	2.08E-03	4.99	0.0006
Residuals	955	3.99E-01	4.18E-04	NA	NA
90th percentile	4	8.27E+02	2.07E+02	16.64	0.0000
Residuals	955	1.19E+04	1.24E+01	NA	NA
95th percentile	4	8.87E+02	2.22E+02	11.95	0.0000
Residuals	955	1.77E+04	1.86E+01	NA	NA
99th percentile	4	4.97E+02	1.24E+02	0.79	0.5299
Residuals	955	1.50E+05	1.57E+02	NA	NA
Maximum magnetic field	4	2.07E+04	5.17E+03	0.16	0.9583
Residuals	955	3.08E+07	3.22E+04	NA	NA

Table 3.10.147: ANOVA test results for 24-hour 'matrix' measures by Transformer Wiring

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	1	7.65E-03	7.65E-03	0.00	0.9510
Residuals	576	1.17E+03	2.02E+00	NA	NA
Harmonic TWA	1	3.71E-03	3.71E-03	0.03	0.8716
Residuals	576	8.17E+01	1.42E-01	NA	NA
RCM	1	1.49E+01	1.49E+01	1.09	0.2975
Residuals	576	7.87E+03	1.37E+01	NA	NA
RCM*	1	2.01E-02	2.01E-02	0.34	0.5593
Residuals	576	3.40E+01	5.90E-02	NA	NA
Sudden field changes > 2.5 mG	1	3.36E+04	3.36E+04	4.67	0.0312
Residuals	576	4.15E+06	7.20E+03	NA	NA
Sudden field changes > 5 mG	1	7.04E+03	7.04E+03	3.25	0.0720
Residuals	576	1.25E+06	2.17E+03	NA	NA
Longest period > 4 mG	1	8.09E+06	8.09E+06	0.26	0.6136
Residuals	576	1.83E+10	3.17E+07	NA	NA
Longest period > 16 mG	1	3.50E+05	3.50E+05	0.97	0.3250
Residuals	576	2.08E+08	3.61E+05	NA	NA
Fraction of measurements > 4 mG	1	1.33E-03	1.33E-03	0.08	0.7708
Residuals	576	9.04E+00	1.57E-02	NA	NA
Fraction of measurements > 16 mG	1	6.23E-04	6.23E-04	1.94	0.1646
Residuals	576	1.85E-01	3.22E-04	NA	NA
90th percentile	1	3.51E+00	3.51E+00	0.20	0.6563
Residuals	576	1.02E+04	1.77E+01	NA	NA
95th percentile	1	6.14E+00	6.14E+00	0.25	0.6199
Residuals	576	1.44E+04	2.50E+01	NA	NA
99th percentile	1	2.90E+01	2.90E+01	0.25	0.6166
Residuals	576	6.65E+04	1.15E+02	NA	NA
Maximum magnetic field	1	9.83E+04	9.83E+04	2.27	0.1327
Residuals	576	2.50E+07	4.34E+04	NA	NA

Table 3.10.148: ANOVA test results for 24-hour 'matrix' measures by Block Type

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	2	8.94E+00	4.47E+00	2.34	0.0972
Residuals	945	1.81E+03	1.91E+00	NA	NA
Harmonic TWA	2	2.14E-01	1.07E-01	0.77	0.4655
Residuals	945	1.32E+02	1.40E-01	NA	NA
RCM	2	1.28E+01	6.41E+00	0.67	0.5111
Residuals	945	9.02E+03	9.54E+00	NA	NA
RCM*	2	4.02E-02	2.01E-02	0.35	0.7039
Residuals	945	5.41E+01	5.73E-02	NA	NA
Sudden field changes > 2.5 mG	2	5.60E+04	2.80E+04	3.15	0.0433
Residuals	945	8.41E+06	8.90E+03	NA	NA
Sudden field changes > 5 mG	2	2.28E+04	1.14E+04	3.30	0.0371
Residuals	945	3.26E+06	3.45E+03	NA	NA
Longest period > 4 mG	2	1.10E+08	5.48E+07	1.65	0.1920
Residuals	945	3.13E+10	3.31E+07	NA	NA
Longest period > 16 mG	2	2.91E+05	1.45E+05	0.49	0.6099
Residuals	945	2.78E+08	2.94E+05	NA	NA
Fraction of measurements > 4 mG	2	7.54E-02	3.77E-02	2.41	0.0904
Residuals	945	1.48E+01	1.56E-02	NA	NA
Fraction of measurements > 16 mG	2	2.63E-04	1.31E-04	0.31	0.7371
Residuals	945	4.07E-01	4.31E-04	NA	NA
90th percentile	2	2.02E+01	1.01E+01	0.76	0.4692
Residuals	945	1.26E+04	1.34E+01	NA	NA
95th percentile	2	4.93E+01	2.46E+01	1.27	0.2825
Residuals	945	1.84E+04	1.95E+01	NA	NA
99th percentile	2	2.39E+02	1.20E+02	0.75	0.4704
Residuals	945	1.50E+05	1.59E+02	NA	NA
Maximum magnetic field	2	3.25E+04	1.63E+04	0.50	0.6066
Residuals	945	3.07E+07	3.25E+04	NA	NA

Table 3.10.149: ANOVA test results for 24-hour 'matrix' measures by Street Type

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	2	2.15E+00	1.08E+00	0.56	0.5689
Residuals	951	1.81E+03	1.91E+00	NA	NA
Harmonic TWA	2	5.58E-02	2.79E-02	0.20	0.8183
Residuals	951	1.32E+02	1.39E-01	NA	NA
RCM	2	5.13E+00	2.56E+00	0.27	0.7633
Residuals	951	9.03E+03	9.49E+00	NA	NA
RCM*	2	1.64E-01	8.19E-02	1.44	0.2386
Residuals	951	5.42E+01	5.70E-02	NA	NA
Sudden field changes > 2.5 mG	2	7.54E+02	3.77E+02	0.04	0.9586
Residuals	951	8.48E+06	8.92E+03	NA	NA
Sudden field changes > 5 mG	2	8.48E+02	4.24E+02	0.12	0.8847
Residuals	951	3.29E+06	3.46E+03	NA	NA
Longest period > 4 mG	2	1.95E+06	9.76E+05	0.03	0.9709
Residuals	951	3.14E+10	3.30E+07	NA	NA
Longest period > 16 mG	2	3.39E+05	1.70E+05	0.58	0.5597
Residuals	951	2.78E+08	2.92E+05	NA	NA
Fraction of measurements > 4 mG	2	3.94E-02	1.97E-02	1.28	0.2790
Residuals	951	1.47E+01	1.54E-02	NA	NA
Fraction of measurements > 16 mG	2	3.34E-04	1.67E-04	0.39	0.6774
Residuals	951	4.07E-01	4.28E-04	NA	NA
90th percentile	2	2.04E+00	1.02E+00	0.08	0.9261
Residuals	951	1.26E+04	1.33E+01	NA	NA
95th percentile	2	2.73E+01	1.36E+01	0.70	0.4965
Residuals	951	1.85E+04	1.95E+01	NA	NA
99th percentile	2	6.41E+02	3.20E+02	2.04	0.1310
Residuals	951	1.50E+05	1.57E+02	NA	NA
Maximum magnetic field	2	4.69E+04	2.34E+04	0.72	0.4847
Residuals	951	3.07E+07	3.23E+04	NA	NA

Table 3.10.150: ANOVA test results for 24-hour 'matrix' measures by Proximity to Train

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	1	8.29E+00	8.29E+00	4.36	0.0371
Residuals	955	1.82E+03	1.90E+00	NA	NA
Harmonic TWA	1	1.74E-01	1.74E-01	1.26	0.2621
Residuals	955	1.32E+02	1.39E-01	NA	NA
RCM	1	4.50E+01	4.50E+01	4.79	0.0289
Residuals	955	8.99E+03	9.41E+00	NA	NA
RCM*	1	6.76E-02	6.76E-02	1.19	0.2753
Residuals	955	5.42E+01	5.67E-02	NA	NA
Sudden field changes > 2.5 mG	1	2.27E+02	2.27E+02	0.03	0.8731
Residuals	955	8.49E+06	8.89E+03	NA	NA
Sudden field changes > 5 mG	1	8.20E+02	8.20E+02	0.24	0.6257
Residuals	955	3.29E+06	3.44E+03	NA	NA
Longest period > 4 mG	1	1.23E+08	1.23E+08	3.73	0.0538
Residuals	955	3.15E+10	3.30E+07	NA	NA
Longest period > 16 mG	1	9.16E+04	9.16E+04	0.31	0.5750
Residuals	955	2.78E+08	2.91E+05	NA	NA
Fraction of measurements > 4 mG	1	1.73E-01	1.73E-01	11.15	0.0009
Residuals	955	1.48E+01	1.55E-02	NA	NA
Fraction of measurements > 16 mG	1	7.37E-05	7.37E-05	0.17	0.6778
Residuals	955	4.08E-01	4.27E-04	NA	NA
90th percentile	1	4.75E+00	4.75E+00	0.36	0.5497
Residuals	955	1.27E+04	1.33E+01	NA	NA
95th percentile	1	8.18E+00	8.18E+00	0.42	0.5170
Residuals	955	1.86E+04	1.95E+01	NA	NA
99th percentile	1	1.13E+00	1.13E+00	0.01	0.9325
Residuals	955	1.50E+05	1.57E+02	NA	NA
Maximum magnetic field	1	1.55E+05	1.55E+05	4.84	0.0280
Residuals	955	3.06E+07	3.21E+04	NA	NA

Table 3.10.151: Kruskal-Wallis test results for Home 'matrix' measures by Wire-code Category

Parameter	Test statistic	Degrees of freedom	P-value
TWA	121.12	4	0.0000
Harmonic TWA	70.17	4	0.0000
RCM	1.97	4	0.7414
RCM*	27.66	4	0.0000
Sudden field changes > 2.5 mG	6.63	4	0.1567
Sudden field changes > 5 mG	4.41	4	0.3530
Longest period > 4 mG	31.85	4	0.0000
Longest period > 16 mG	4.61	4	0.3296
Fraction of measurements > 4 mG	32.25	4	0.0000
Fraction of measurements > 16 mG	4.31	4	0.3652
90th percentile	84.03	4	0.0000
95th percentile	62.68	4	0.0000
99th percentile	19.60	4	0.0006
Maximum magnetic field	2.11	4	0.7152

Table 3.10.152: Kruskal-Wallis test results for Home 'matrix' measures by Transformer Wiring

Parameter	Test statistic	Degrees of freedom	P-value
TWA	13.66	1	0.0002
Harmonic TWA	26.17	1	0.0000
RCM	0.01	1	0.9107
RCM*	0.25	1	0.6202
Sudden field changes > 2.5 mG	0.02	1	0.8929
Sudden field changes > 5 mG	0.88	1	0.3492
Longest period > 4 mG	0.14	1	0.7052
Longest period > 16 mG	0.36	1	0.5491
Fraction of measurements > 4 mG	0.27	1	0.6009
Fraction of measurements > 16 mG	0.18	1	0.6728
90th percentile	4.45	1	0.0348
95th percentile	4.08	1	0.0435
99th percentile	1.55	1	0.2125
Maximum magnetic field	0.21	1	0.6441

Table 3.10.153: Kruskal-Wallis test results for Home 'matrix' measures by Block Type

Parameter	Test statistic	Degrees of freedom	P-value
TWA	32.75	2	0.0000
Harmonic TWA	25.38	2	0.0000
RCM	7.53	2	0.0232
RCM*	5.58	2	0.0615
Sudden field changes > 2.5 mG	5.88	2	0.0528
Sudden field changes > 5 mG	8.59	2	0.0136
Longest period > 4 mG	0.41	2	0.8139
Longest period > 16 mG	1.60	2	0.4502
Fraction of measurements > 4 mG	1.14	2	0.5667
Fraction of measurements > 16 mG	2.02	2	0.3638
90th percentile	12.99	2	0.0015
95th percentile	5.58	2	0.0615
99th percentile	1.56	2	0.4591
Maximum magnetic field	4.29	2	0.1173

Table 3.10.154: Kruskal-Wallis test results for Home 'matrix' measures by Street Type

Parameter	Test statistic	Degrees of freedom	P-value
TWA	0.86	2	0.6508
Harmonic TWA	1.20	2	0.5480
RCM	1.55	2	0.4601
RCM*	5.60	2	0.0609
Sudden field changes > 2.5 mG	3.27	2	0.1946
Sudden field changes > 5 mG	3.12	2	0.2106
Longest period > 4 mG	2.88	2	0.2365
Longest period > 16 mG	0.53	2	0.7665
Fraction of measurements > 4 mG	2.61	2	0.2705
Fraction of measurements > 16 mG	0.58	2	0.7485
90th percentile	1.38	2	0.5020
95th percentile	1.54	2	0.4620
99th percentile	2.53	2	0.2824
Maximum magnetic field	0.40	2	0.8174

Table 3.10.155: Kruskal-Wallis test results for Home 'matrix' measures by Proximity to Train

Parameter	Test statistic	Degrees of freedom	P-value
TWA	4.93	1	0.0265
Harmonic TWA	4.30	1	0.0382
RCM	1.43	1	0.2321
RCM*	0.03	1	0.8663
Sudden field changes > 2.5 mG	2.48	1	0.1155
Sudden field changes > 5 mG	1.59	1	0.2067
Longest period > 4 mG	0.75	1	0.3875
Longest period > 16 mG	0.10	1	0.7470
Fraction of measurements > 4 mG	0.28	1	0.5945
Fraction of measurements > 16 mG	0.17	1	0.6804
90th percentile	0.81	1	0.3667
95th percentile	0.07	1	0.7886
99th percentile	1.95	1	0.1630
Maximum magnetic field	0.31	1	0.5788

Table 3.10.156: ANOVA test results for Home 'matrix' measures by Wire-code Category

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	4	2.41E+02	6.02E+01	38.50	0.0000
Residuals	883	1.38E+03	1.56E+00	NA	NA
Harmonic TWA	4	5.37E+00	1.34E+00	22.42	0.0000
Residuals	883	5.29E+01	5.99E-02	NA	NA
RCM	4	2.94E+01	7.34E+00	0.71	0.5820
Residuals	883	9.07E+03	1.03E+01	NA	NA
RCM*	4	1.89E+00	4.73E-01	6.42	0.0000
Residuals	883	6.51E+01	7.37E-02	NA	NA
Sudden field changes > 2.5 mG	4	3.57E+03	8.92E+02	0.72	0.5776
Residuals	883	1.09E+06	1.24E+03	NA	NA
Sudden field changes > 5 mG	4	7.06E+02	1.77E+02	0.46	0.7654
Residuals	883	3.39E+05	3.84E+02	NA	NA
Longest period > 4 mG	4	3.89E+09	9.71E+08	17.86	0.0000
Residuals	883	4.80E+10	5.44E+07	NA	NA
Longest period > 16 mG	4	2.46E+06	6.14E+05	0.59	0.6713
Residuals	883	9.22E+08	1.04E+06	NA	NA
Fraction of measurements > 4 mG	4	2.88E+00	7.19E-01	26.26	0.0000
Residuals	883	2.42E+01	2.74E-02	NA	NA
Fraction of measurements > 16 mG	4	8.04E-03	2.01E-03	1.94	0.1025
Residuals	883	9.17E-01	1.04E-03	NA	NA
90th percentile	4	4.97E+02	1.24E+02	12.31	0.0000
Residuals	883	8.91E+03	1.01E+01	NA	NA
95th percentile	4	4.41E+02	1.10E+02	3.29	0.0109
Residuals	883	2.96E+04	3.35E+01	NA	NA
99th percentile	4	1.80E+02	4.50E+01	0.45	0.7734
Residuals	883	8.85E+04	1.00E+02	NA	NA
Maximum magnetic field	4	4.55E+04	1.14E+04	0.74	0.5634
Residuals	883	1.35E+07	1.53E+04	NA	NA

Table 3.10.157: ANOVA test results for Home 'matrix' measures by Transformer Wiring

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	1	4.59E+00	4.59E+00	2.97	0.0856
Residuals	528	8.17E+02	1.55E+00	NA	NA
Harmonic TWA	1	7.43E-01	7.43E-01	14.86	0.0001
Residuals	528	2.64E+01	5.00E-02	NA	NA
RCM	1	2.47E+01	2.47E+01	1.49	0.2221
Residuals	528	8.74E+03	1.65E+01	NA	NA
RCM*	1	2.98E-02	2.98E-02	0.43	0.5121
Residuals	528	3.66E+01	6.94E-02	NA	NA
Sudden field changes > 2.5 mG	1	5.86E+02	5.86E+02	0.46	0.4994
Residuals	528	6.77E+05	1.28E+03	NA	NA
Sudden field changes > 5 mG	1	2.85E+02	2.85E+02	0.75	0.3872
Residuals	528	2.01E+05	3.81E+02	NA	NA
Longest period > 4 mG	1	1.47E+05	1.47E+05	0.00	0.9618
Residuals	528	3.39E+10	6.42E+07	NA	NA
Longest period > 16 mG	1	8.06E+05	8.06E+05	0.47	0.4933
Residuals	528	9.06E+08	1.72E+06	NA	NA
Fraction of measurements > 4 mG	1	2.69E-04	2.69E-04	0.01	0.9300
Residuals	528	1.84E+01	3.48E-02	NA	NA
Fraction of measurements > 16 mG	1	3.40E-04	3.40E-04	1.26	0.2621
Residuals	528	1.42E-01	2.70E-04	NA	NA
90th percentile	1	4.73E+00	4.73E+00	0.37	0.5421
Residuals	528	6.71E+03	1.27E+01	NA	NA
95th percentile	1	1.79E-01	1.79E-01	0.00	0.9497
Residuals	528	2.37E+04	4.49E+01	NA	NA
99th percentile	1	3.39E+00	3.39E+00	0.03	0.8545
Residuals	528	5.32E+04	1.01E+02	NA	NA
Maximum magnetic field	1	3.62E+04	3.62E+04	1.44	0.2302
Residuals	528	1.32E+07	2.51E+04	NA	NA

Table 3.10.158: ANOVA test results for Home 'matrix' measures by Block Type

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	2	2.94E+01	1.47E+01	8.10	0.0003
Residuals	874	1.59E+03	1.82E+00	NA	NA
Harmonic TWA	2	1.02E+00	5.08E-01	7.78	0.0004
Residuals	874	5.71E+01	6.53E-02	NA	NA
RCM	2	2.71E+00	1.35E+00	0.13	0.8780
Residuals	874	9.08E+03	1.04E+01	NA	NA
RCM*	2	3.37E-01	1.68E-01	2.24	0.1072
Residuals	874	6.57E+01	7.52E-02	NA	NA
Sudden field changes > 2.5 mG	2	6.41E+02	3.20E+02	0.26	0.7737
Residuals	874	1.09E+06	1.25E+03	NA	NA
Sudden field changes > 5 mG	2	3.35E+02	1.68E+02	0.43	0.6487
Residuals	874	3.39E+05	3.87E+02	NA	NA
Longest period > 4 mG	2	1.46E+08	7.32E+07	1.24	0.2907
Residuals	874	5.17E+10	5.92E+07	NA	NA
Longest period > 16 mG	2	9.59E+05	4.80E+05	0.45	0.6355
Residuals	874	9.24E+08	1.06E+06	NA	NA
Fraction of measurements > 4 mG	2	1.18E-01	5.91E-02	1.92	0.1474
Residuals	874	2.69E+01	3.08E-02	NA	NA
Fraction of measurements > 16 mG	2	7.27E-04	3.64E-04	0.34	0.7089
Residuals	874	9.24E-01	1.06E-03	NA	NA
90th percentile	2	4.88E+01	2.44E+01	2.29	0.1022
Residuals	874	9.33E+03	1.07E+01	NA	NA
95th percentile	2	2.48E+01	1.24E+01	0.36	0.6965
Residuals	874	3.00E+04	3.43E+01	NA	NA
99th percentile	2	3.20E+01	1.60E+01	0.16	0.8540
Residuals	874	8.86E+04	1.01E+02	NA	NA
Maximum magnetic field	2	9.82E+03	4.91E+03	0.32	0.7288
Residuals	874	1.36E+07	1.55E+04	NA	NA

Table 3.10.159: ANOVA test results for Home 'matrix' measures by Street Type

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	2	3.77E-01	1.88E-01	0.10	0.9023
Residuals	879	1.61E+03	1.83E+00	NA	NA
Harmonic TWA	2	5.07E-02	2.54E-02	0.38	0.6813
Residuals	879	5.80E+01	6.60E-02	NA	NA
RCM	2	4.83E-01	2.42E-01	0.02	0.9769
Residuals	879	9.10E+03	1.04E+01	NA	NA
RCM*	2	3.68E-01	1.84E-01	2.45	0.0871
Residuals	879	6.61E+01	7.52E-02	NA	NA
Sudden field changes > 2.5 mG	2	3.65E+03	1.83E+03	1.47	0.2302
Residuals	879	1.09E+06	1.24E+03	NA	NA
Sudden field changes > 5 mG	2	7.27E+02	3.63E+02	0.94	0.3900
Residuals	879	3.39E+05	3.85E+02	NA	NA
Longest period > 4 mG	2	3.11E+07	1.56E+07	0.27	0.7617
Residuals	879	5.03E+10	5.72E+07	NA	NA
Longest period > 16 mG	2	1.18E+05	5.91E+04	0.06	0.9454
Residuals	879	9.25E+08	1.05E+06	NA	NA
Fraction of measurements > 4 mG	2	3.44E-02	1.72E-02	0.56	0.5694
Residuals	879	2.68E+01	3.05E-02	NA	NA
Fraction of measurements > 16 mG	2	2.38E-04	1.19E-04	0.11	0.8928
Residuals	879	9.24E-01	1.05E-03	NA	NA
90th percentile	2	3.27E+01	1.63E+01	1.55	0.2128
Residuals	879	9.27E+03	1.05E+01	NA	NA
95th percentile	2	4.15E+02	2.07E+02	6.18	0.0022
Residuals	879	2.95E+04	3.36E+01	NA	NA
99th percentile	2	1.46E+03	7.28E+02	7.34	0.0007
Residuals	879	8.72E+04	9.92E+01	NA	NA
Maximum magnetic field	2	1.35E+02	6.75E+01	0.00	0.9956
Residuals	879	1.36E+07	1.54E+04	NA	NA

Table 3.10.160: ANOVA test results for Home 'matrix' measures by Proximity to Train

Dependent variable	Degrees of freedom	Sum of Squares	Mean Squares	F-value	P-value of F
TWA	1	9.17E+00	9.17E+00	5.04	0.0250
Residuals	883	1.61E+03	1.82E+00	NA	NA
Harmonic TWA	1	4.10E-01	4.10E-01	6.26	0.0125
Residuals	883	5.78E+01	6.54E-02	NA	NA
RCM	1	1.66E+00	1.66E+00	0.16	0.6884
Residuals	883	9.10E+03	1.03E+01	NA	NA
RCM*	1	6.07E-03	6.07E-03	0.08	0.7771
Residuals	883	6.69E+01	7.57E-02	NA	NA
Sudden field changes > 2.5 mG	1	5.33E+01	5.33E+01	0.04	0.8359
Residuals	883	1.10E+06	1.24E+03	NA	NA
Sudden field changes > 5 mG	1	1.53E+02	1.53E+02	0.40	0.5289
Residuals	883	3.39E+05	3.84E+02	NA	NA
Longest period > 4 mG	1	3.56E+08	3.56E+08	6.09	0.0138
Residuals	883	5.16E+10	5.84E+07	NA	NA
Longest period > 16 mG	1	2.64E+05	2.64E+05	0.25	0.6160
Residuals	883	9.25E+08	1.05E+06	NA	NA
Fraction of measurements > 4 mG	1	1.16E-01	1.16E-01	3.79	0.0518
Residuals	883	2.69E+01	3.05E-02	NA	NA
Fraction of measurements > 16 mG	1	1.86E-04	1.86E-04	0.18	0.6733
Residuals	883	9.24E-01	1.05E-03	NA	NA
90th percentile	1	2.45E+01	2.45E+01	2.31	0.1290
Residuals	883	9.37E+03	1.06E+01	NA	NA
95th percentile	1	3.93E+00	3.93E+00	0.12	0.7338
Residuals	883	3.00E+04	3.40E+01	NA	NA
99th percentile	1	1.01E+02	1.01E+02	1.01	0.3156
Residuals	883	8.86E+04	1.00E+02	NA	NA
Maximum magnetic field	1	1.86E+03	1.86E+03	0.12	0.7280
Residuals	883	1.36E+07	1.54E+04	NA	NA

3.11 Investigate the ability of the front entrance spot measurement to predict various indoor measurements.

Scatter plots of front entrance spot measurement versus mean indoor spot measurements and broadband TWA at-home measurements are presented in Figures 3.11.1 and 3.11.2, respectively. The mean indoor spot measurement was computed as the average of the center of room measurements in the kitchen, bedroom and the subject's most frequently occupied "other" room, if available. Linear regressions against the front entrance measurement were performed for the mean indoor spot measurement, at home TWA measurement, at home RCM, at home RCM* and longest episode with maximum > 16 mG. The results are presented in Tables 3.11.1 through 3.11.5. None of the indoor summary measures showed a strong relationship with Front Door Spot. ($R^2 < 0.2$ for all summary measures).

Table 3.11.1: Linear regression of spot indoor mean magnetic field by spot entrance magnetic field

Spot Indoor Mean = Spot Entrance + Intercept + ϵ					
Residuals:					
	Minimum	1 st Quartile	Median	3 rd Quartile	Maximum
	-4.8342	-0.6591	-0.2803	0.2544	10.8953
Coefficients:					
		Estimate	Standard Error	T value	Pr(> t)
	(Intercept)	0.99993	0.05046	19.82	<2e-16
	Spot Entrance	0.23393	0.01530	15.29	<2e-16
Residual standard error: 1.26 on 944 degrees of freedom					
Multiple R-Squared: 0.1986			Adjusted R-squared: 0.1977		
F-statistic: 233.9 on 1 and 944 degrees of freedom			p-value: < 2.2e-16		

Table 3.11.2: Linear regression of Home TWA magnetic field by spot entrance magnetic field

Home TWA = Spot Entrance + Intercept + ϵ					
Residuals:					
	Minimum	1 st Quartile	Median	3 rd Quartile	Maximum
	-6.5182	-0.6102	-0.3192	0.2109	23.8508
Coefficients:					
		Estimate	Standard Error	T value	Pr(> t)
	(Intercept)	0.89851	0.06003	14.97	<2e-16
	Spot Entrance	0.25514	0.01798	14.19	<2e-16
Residual standard error: 1.452 on 881 degrees of freedom					
Multiple R-Squared: 0.186			Adjusted R-squared: 0.1851		
F-statistic: 201.3 on 1 and 881 degrees of freedom			p-value: < 2.2e-16		

Table 3.11.3: Linear regression of Home Rate-of-Change Metric (RCM) by spot entrance magnetic field

Home RCM = Spot Entrance + Intercept + ϵ					
Residuals:					
	Minimum	1 st Quartile	Median	3 rd Quartile	Maximum
	-0.66378	-0.40093	-0.24883	-0.00339	68.8606
Coefficients:					
		Estimate	Standard Error	T value	Pr(> t)
	(Intercept)	0.61125	0.09922	6.160	1.10e-09
	Spot Entrance	0.01168	0.02972	0.393	0.695
Residual standard error: 2.399 on 881 degrees of freedom					
Multiple R-Squared: 0.0001751			Adjusted R-squared: -0.0009597		
F-statistic: 0.154 on 1 and 881 degrees of freedom			p-value: 0.6945		

Table 3.11.4: Linear regression of Home Dimensionless Rate-of-Change Metric (RCM*) by spot entrance magnetic field

Home RCM* = Spot Entrance + Intercept + ϵ					
Residuals:					
	Minimum	1 st Quartile	Median	3 rd Quartile	Maximum
	-0.50695	-0.20386	-0.02634	0.18272	0.80278
Coefficients:					
		Estimate	Standard Error	T value	Pr(> t)
	(Intercept)	0.61198	0.01095	55.87	< 2e-16
	Spot Entrance	-0.01847	0.00328	-5.63	2.43e-08
Residual standard error: 0.2649 on 881 degrees of freedom					
Multiple R-Squared: 0.03473			Adjusted R-squared: 0.03363		
F-statistic: 31.69 on 1 and 881 degrees of freedom			p-value: 2.43e-08		

Table 3.11.5: Linear regression of Home Longest Period Exceeding 2 mG by spot entrance magnetic field

Home longest period > 2 mG = Spot Entrance + Intercept + ϵ					
Residuals:					
	Minimum	1 st Quartile	Median	3 rd Quartile	Maximum
	-60922	-3872	-2472	-1317	70185
Coefficients:					
		Estimate	Standard Error	T value	Pr(> t)
(Intercept)	1590.6	459.2	3.464	0.00056	
Spot Entrance	2003.3	137.5	14.565	<2e-16	
Residual standard error: 11100 on 881 degrees of freedom					
Multiple R-Squared: 0.1941			Adjusted R-squared: 0.1932		
F-statistic: 212.1 on 1 and 881 degrees of freedom			p-value: <2e-16		

Figure 3.11.1: Indoor mean magnetic field spot measurement versus front entrance spot measurement

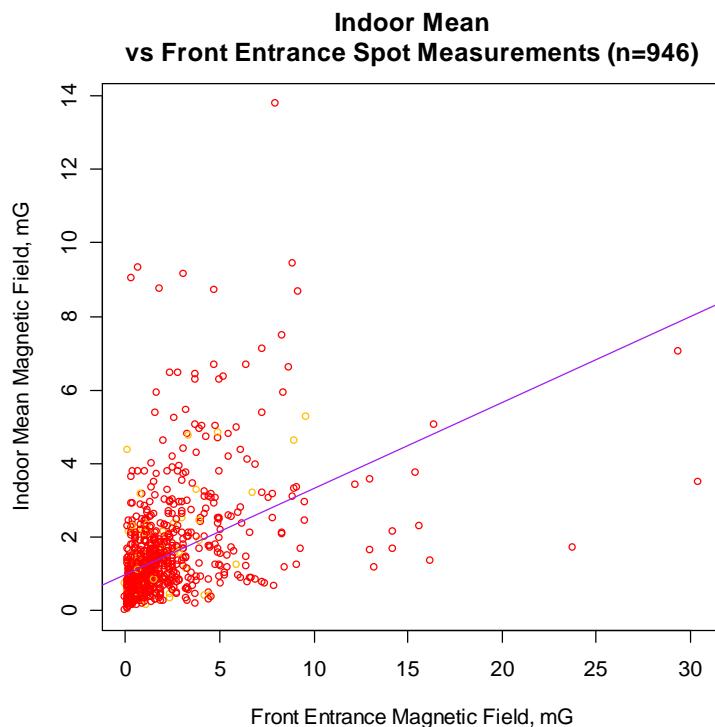
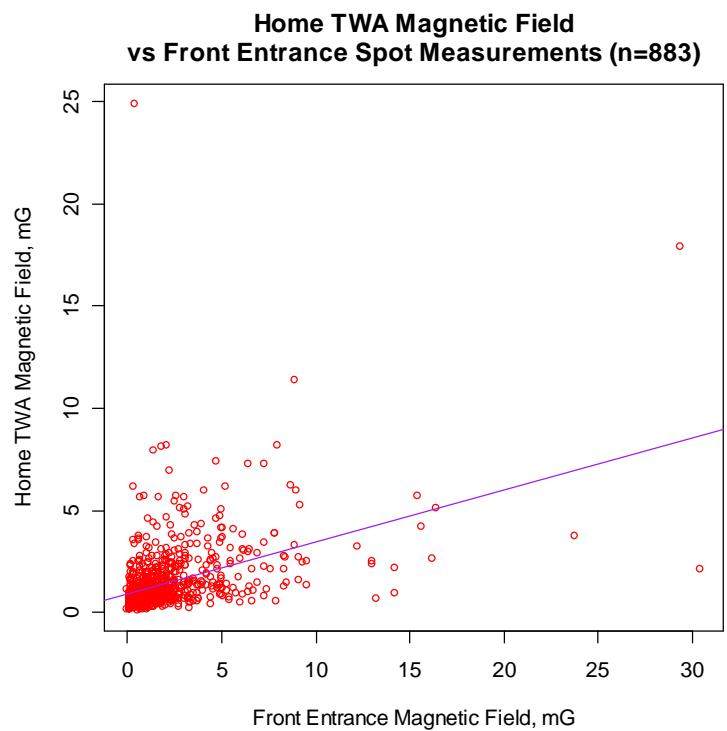


Figure 3.11.2: Home TWA magnetic field versus front entrance spot measurement



3.12 Characterization of highest fields contributing to average exposures exceeding 2 mG and 4 mG

This analysis was intended to show whether sources of high exposures, defined as TWA greater than 2 or 4 mG, were due to brief periods of high fields or longer periods of lower fields. To do this, a value B_0 was computed for each subject, the highest field above which the integrated exposure meets or exceeds the threshold of 2 or 4 mG-days. The fraction of measurements above B_0 was also computed, representing the minimum fraction of the day with integrated exposure greater than the thresholds of 2 and 4 mG-days. The unit mG-day is used because some subjects did not have a full 24-hours and their integrated exposure has been computed in a prorated fashion. Day, here, is meant to be equivalent to the subject's day, not necessarily 24-hours.

Cumulative distribution plots of the fraction of day above B_0 and B_0 for the two thresholds are presented in Figures 3.12.1 through 3.12.4. The straight line in these figures represents a normal distribution with the same mean and standard deviation as the data (in Figure 3.12.2 and 3.12.4 the data are log-transformed first). In Figure 3.12.1, the subjects with high field exposures receive 2 mG-days in a small fraction of the day: for example about 25 percent of the subjects with at least 2 mG-days of exposure in less than about 4.8 hours (approximately 20% of their day). In Figure 3.12.2, it appears that about 5% of subjects with at least 2 mG-days of exposure receive 2 mG-days of exposure above 20 mG. About 20.1 percent of subjects ($n = 193$) had integrated exposure of 2 mG-days or more. About 3.6 percent of subjects ($n = 35$) had integrated exposure of 4 mG-days or more.

Figure 3.12.1: Cumulative distribution of minimum fraction of day with integrated exposure exceeding 2 mG-days for subjects with 2 mG-days or more of integrated exposure

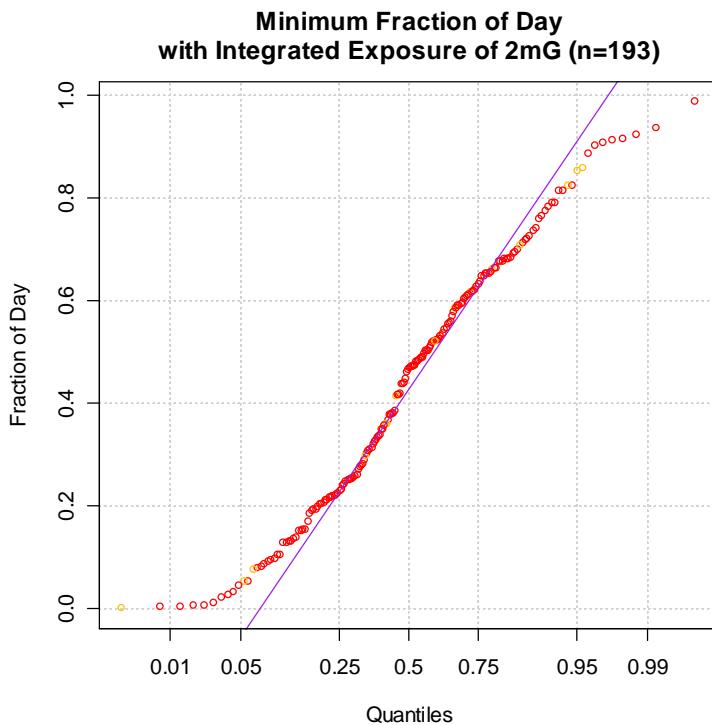


Figure 3.12.2: Cumulative distribution of the field above which integrated exposure meet or exceeds 2 mG-days for subjects with 2 mG-days or more of integrated exposure

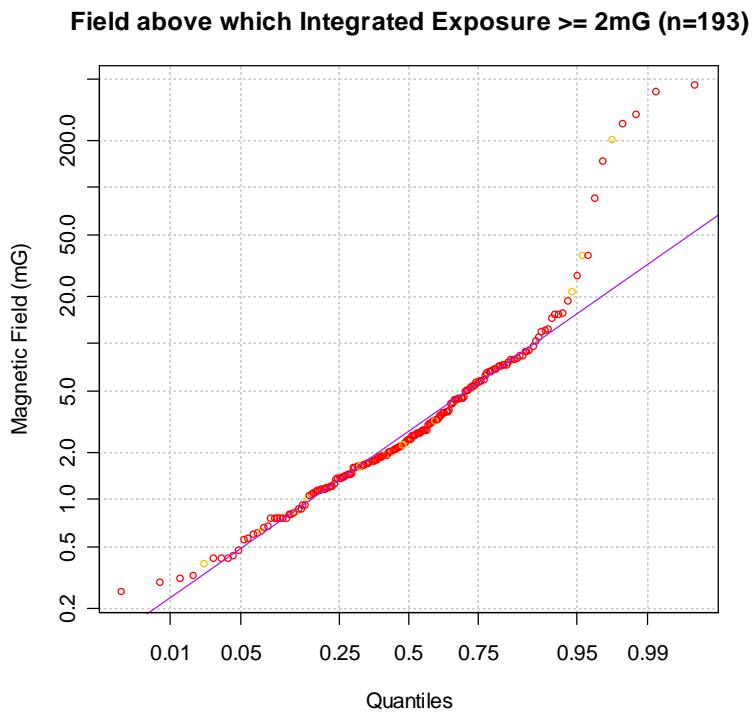


Figure 3.12.3: Cumulative distribution of minimum fraction of day with integrated exposure exceeding 4 mG-days for subjects with 4 mG-days or more of integrated exposure

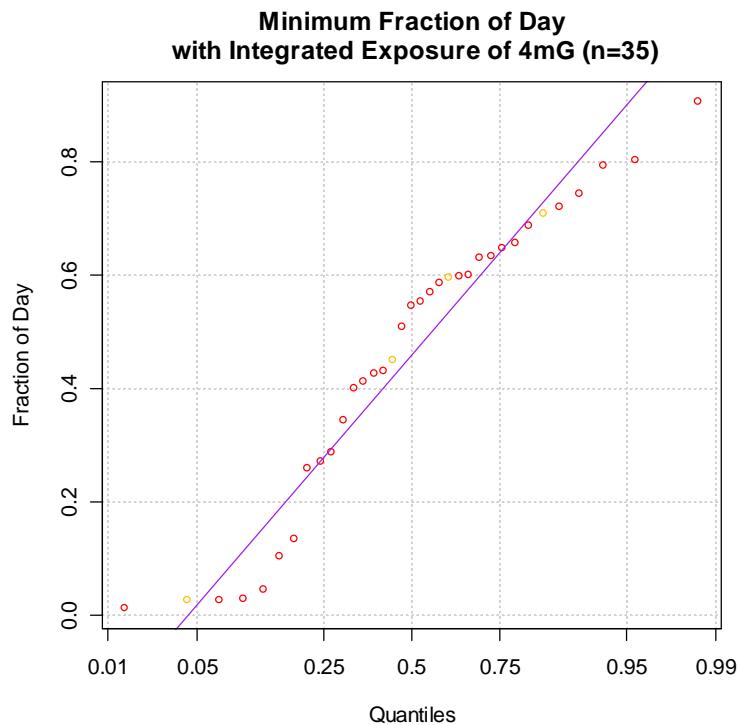
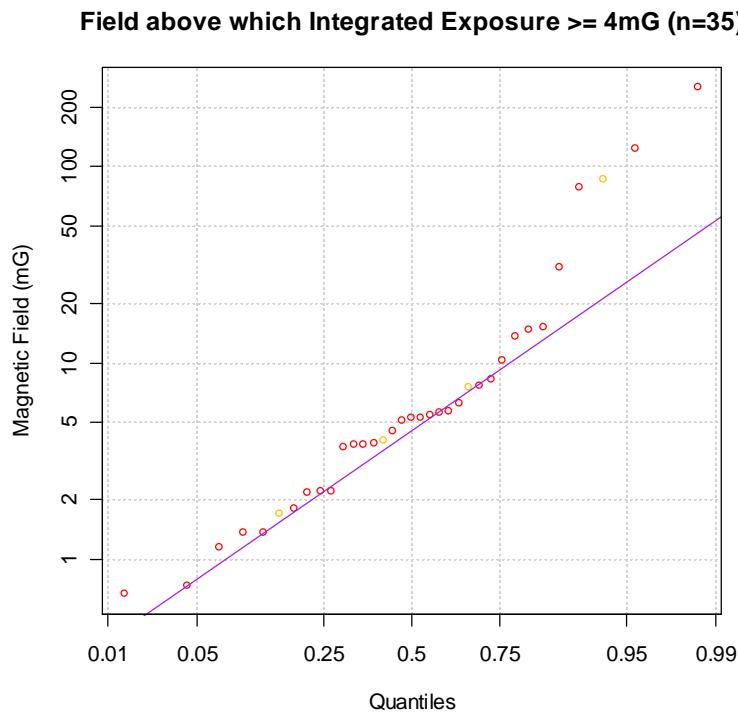


Figure 3.12.4: Cumulative distribution of the field above which integrated exposure meet or exceeds 4 mG-days for subjects with 4 mG-days or more of integrated exposure



3.13 Investigation of the sensitivity of episode-related parameters to the number of episodes experienced by the subject.

Episodes were introduced to describe periods of relatively stable magnetic field exposure. This analysis considers episodes with maximum magnetic fields greater than 16 mG and investigates whether subjects with many such episodes have different kinds of episodes. The characteristics investigated include episode duration (number of measurements), episode exposure (mG-hours), and mean episode magnetic field (mG). Subjects were categorized by number of episodes with maximum greater than 16 mG during a day. Summary measures for episode characteristics were then computed for each category. Box-and-whisker diagrams are presented for episodes from the 24-hour period and for each individual environment (Home, In-bed, Work, Travel and Other) in Figures 3.13.1 through 3.13.18. Descriptive statistics for the subjects in each category are presented in the tables corresponding to each box-and-whisker diagram.

Of the 889 valid subjects with valid diaries 346 (38.9 percent) had episodes with maximum > 16 mG in only one environment, 310 (34.9 percent) had episodes in multiple environments, and 233 (26.2 percent) had no episodes. Of those subjects with episodes in only one environment 146 had episodes only in Home, 4 only In-bed, 91 only in Work, 65 only during Travel, and 56 only in Other.

Figure 3.13.1: Box-and-whisker diagram of 24-hour episode duration by Episodes with Maximum Exceeding 16 mG

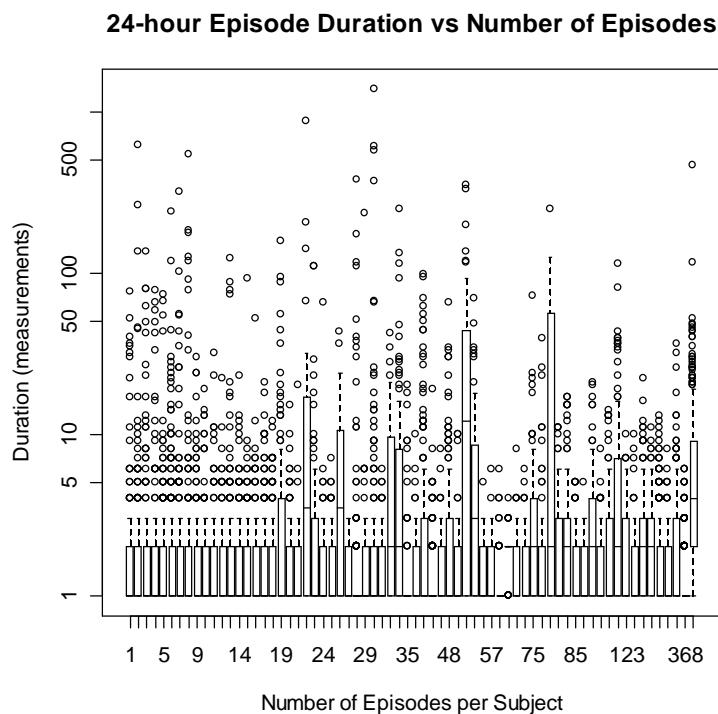


Table 3.13.1: Summary measures for 24-hour episode duration by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	133	4.1	10.2	1.7	1.0	25.2	48.2	77.0
2	206	7.3	48.1	1.6	1.0	7.8	129.6	626.0
3	195	4.4	14.0	1.7	1.0	12.3	80.0	134.0
4	236	3.1	8.8	1.5	1.0	6.0	55.5	78.0
5	235	2.7	7.8	1.4	1.0	6.0	50.3	73.0
6	204	4.8	19.2	1.7	1.0	14.9	43.6	239.0
7	175	5.6	26.0	1.7	1.0	16.2	67.2	318.0
8	232	7.7	41.6	1.6	1.0	9.4	161.9	548.0
9	135	2.7	4.3	1.7	1.0	8.3	24.0	30.0
10	160	2.1	2.6	1.5	1.0	8.0	13.4	19.0
11	121	2.3	3.9	1.5	1.0	6.0	20.6	32.0
12	120	1.9	2.4	1.4	1.0	5.0	10.4	22.0
13	208	3.6	12.7	1.5	1.0	6.6	77.7	122.0
14	112	2.3	3.1	1.6	1.0	7.3	12.9	23.0
15	135	2.5	7.9	1.5	1.0	5.0	8.7	92.0
16	224	1.8	3.6	1.4	1.0	4.8	7.8	52.0
17	153	2.3	2.9	1.6	1.0	7.8	15.4	21.0
18	108	2.1	2.1	1.5	1.0	7.0	10.7	12.0
19	133	6.5	18.5	2.2	1.0	21.6	91.8	158.0
20	120	2.0	1.9	1.6	1.0	5.0	9.6	15.0
21	63	1.8	2.5	1.3	1.0	3.0	11.3	20.0
22	66	27.2	111.0	5.1	3.5	58.3	440.9	881.0
23	161	4.0	12.4	1.9	1.0	9.0	61.0	110.0
24	96	2.3	6.6	1.4	1.0	4.0	8.9	65.0
25	75	1.7	1.2	1.5	1.0	4.0	5.5	7.0
26	52	7.6	9.2	3.8	3.5	22.9	39.4	43.0
27	27	1.4	0.6	1.3	1.0	2.7	3.0	3.0
28	168	7.3	34.3	1.5	1.0	26.9	135.2	375.0
29	145	3.1	19.5	1.4	1.0	3.0	6.0	236.0
30	150	22.9	133.0	2.0	1.0	23.6	587.9	1369.0
31	62	1.8	1.2	1.5	1.0	4.0	5.4	6.0
32	64	6.3	9.0	2.8	2.0	22.7	37.0	42.0
34	102	11.4	31.4	3.2	2.0	39.5	132.8	251.0
35	70	2.3	3.7	1.4	1.0	9.0	18.6	20.0
38	76	1.7	1.4	1.4	1.0	4.0	7.0	10.0
39	156	6.6	15.3	2.3	1.0	36.5	80.2	98.0
40	160	1.6	1.7	1.3	1.0	4.0	6.2	19.0
41	82	1.6	1.2	1.4	1.0	4.0	6.4	8.0
48	144	4.1	7.8	2.1	1.0	16.3	33.6	65.0

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
49	49	2.0	2.1	1.5	1.0	7.0	10.0	10.0
51	51	42.1	73.9	10.2	12.0	166.0	342.0	350.0
52	52	8.8	13.6	3.7	3.0	33.5	58.8	70.0
55	55	1.6	0.8	1.4	1.0	3.0	3.9	5.0
57	57	1.5	0.9	1.4	1.0	3.0	4.9	6.0
59	59	1.4	0.9	1.2	1.0	3.1	4.8	6.0
60	60	2.0	0.5	1.9	2.0	3.0	3.4	4.0
70	70	1.7	1.2	1.4	1.0	3.6	5.2	8.0
74	74	1.6	1.0	1.4	1.0	4.0	5.3	6.0
75	75	4.4	9.3	2.2	2.0	18.6	36.5	72.0
76	76	2.9	5.9	1.5	1.0	11.0	29.3	39.0
77	77	25.6	44.5	4.3	2.0	93.8	155.0	250.0
79	79	2.5	2.5	1.8	1.0	8.2	11.0	11.0
84	84	3.4	4.0	2.2	2.0	14.7	17.0	17.0
85	85	1.7	1.1	1.5	1.0	4.0	5.0	5.0
90	90	1.4	0.7	1.3	1.0	3.0	3.2	5.0
91	91	3.7	4.0	2.5	2.0	13.0	20.1	21.0
97	97	1.6	1.2	1.4	1.0	4.0	5.1	8.0
103	103	2.5	2.9	1.7	1.0	9.9	13.0	14.0
119	119	7.7	15.4	2.9	2.0	36.2	74.2	114.0
123	123	2.0	1.6	1.6	1.0	5.0	7.0	10.0
130	130	1.6	1.3	1.4	1.0	3.6	7.7	10.0
131	131	2.9	3.1	2.0	2.0	9.0	14.8	22.0
159	159	2.2	1.8	1.8	2.0	6.0	8.4	11.0
179	179	2.3	2.1	1.7	1.0	7.0	11.2	13.0
185	185	1.5	1.0	1.3	1.0	3.0	5.2	8.0
191	191	2.8	4.5	1.8	1.0	8.0	26.6	36.0
368	368	1.4	0.8	1.2	1.0	3.0	5.0	6.0
668	668	7.3	19.7	4.0	4.0	17.0	43.3	468.0

Figure 3.13.2: Box-and-whisker diagram of 24-hour episode exposure by Episodes with Maximum Exceeding 16 mG

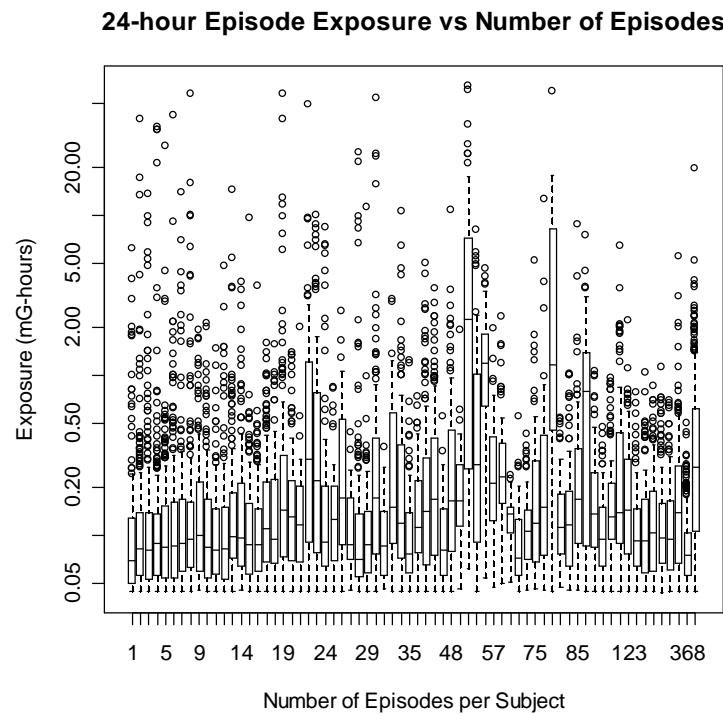


Table 3.13.2: Summary measures for 24-hour episode exposure by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	133	0.275	0.739	0.104	0.070	1.294	3.662	6.174
2	206	0.511	3.157	0.109	0.083	0.643	12.951	39.885
3	195	0.411	1.493	0.115	0.082	1.308	8.859	13.662
4	236	0.674	4.085	0.106	0.089	0.469	29.551	35.004
5	235	0.283	1.779	0.104	0.085	0.421	2.954	26.748
6	204	0.441	3.012	0.115	0.087	0.970	2.150	42.083
7	175	0.349	1.275	0.118	0.090	1.150	5.044	13.852
8	232	0.614	4.030	0.121	0.095	0.897	9.869	57.473
9	135	0.221	0.328	0.127	0.101	0.899	1.698	1.912
10	160	0.179	0.285	0.107	0.085	0.736	1.502	2.107
11	121	0.147	0.194	0.102	0.082	0.454	1.067	1.478
12	120	0.238	0.553	0.112	0.083	0.981	2.423	4.858
13	208	0.289	1.111	0.128	0.098	0.752	3.518	14.409
14	112	0.295	0.590	0.138	0.097	1.197	3.320	3.809
15	135	0.207	0.823	0.108	0.087	0.415	0.694	9.582
16	224	0.136	0.249	0.100	0.088	0.300	0.491	3.594
17	153	0.215	0.264	0.136	0.111	0.780	1.317	1.578
18	108	0.193	0.249	0.124	0.094	0.808	1.046	1.557
19	133	1.362	6.252	0.200	0.145	3.931	31.103	57.493
20	120	0.223	0.275	0.144	0.131	0.810	1.333	1.396
21	63	0.173	0.254	0.124	0.118	0.298	1.109	2.009
22	66	1.797	6.131	0.383	0.302	5.653	23.196	48.500
23	161	0.765	1.607	0.253	0.222	3.711	8.453	10.058
24	96	0.547	1.477	0.146	0.092	3.826	6.650	8.447
25	75	0.168	0.161	0.127	0.126	0.519	0.836	0.841
26	52	0.391	0.471	0.215	0.173	1.168	2.068	2.515
27	27	0.131	0.096	0.107	0.088	0.316	0.412	0.437
28	168	0.618	2.789	0.110	0.071	1.530	13.547	24.554
29	145	0.196	0.926	0.100	0.088	0.305	0.786	11.196
30	150	1.098	5.226	0.210	0.173	1.824	23.685	53.259
31	62	0.110	0.069	0.093	0.086	0.246	0.302	0.357
32	64	0.393	0.573	0.199	0.151	1.222	2.916	3.000
34	102	0.530	1.358	0.181	0.120	1.627	6.436	10.521
35	70	0.154	0.218	0.101	0.077	0.474	1.203	1.243
38	76	0.169	0.145	0.128	0.112	0.477	0.669	0.735
39	156	0.355	0.679	0.165	0.143	1.606	3.460	4.994
40	160	0.370	0.531	0.195	0.169	1.223	2.538	3.458
41	82	0.110	0.079	0.092	0.082	0.232	0.375	0.549
48	144	0.436	1.003	0.203	0.166	1.486	3.123	10.676

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
49	49	0.230	0.274	0.170	0.166	0.486	1.282	1.908
51	51	7.912	13.853	1.591	2.231	31.985	61.668	63.322
52	52	1.119	1.829	0.346	0.278	5.353	6.892	8.013
55	55	1.452	1.093	0.983	1.187	3.728	4.339	4.618
57	57	0.333	0.337	0.228	0.213	0.913	1.560	1.954
59	59	0.374	0.412	0.257	0.232	1.215	1.882	2.330
60	60	0.129	0.039	0.122	0.137	0.205	0.229	0.237
70	70	0.101	0.078	0.085	0.072	0.239	0.367	0.553
74	74	0.127	0.082	0.108	0.107	0.308	0.380	0.432
75	75	0.314	0.667	0.151	0.121	1.276	2.665	5.216
76	76	0.483	1.510	0.189	0.151	0.902	6.009	12.642
77	77	4.585	8.026	1.245	1.169	13.570	27.644	58.823
79	79	0.157	0.119	0.127	0.112	0.435	0.535	0.539
84	84	0.197	0.226	0.131	0.118	0.739	1.002	1.023
85	85	0.429	1.048	0.200	0.168	1.281	4.879	8.680
90	90	1.021	1.191	0.447	0.791	3.017	4.830	7.480
91	91	0.206	0.210	0.146	0.136	0.668	1.007	1.056
97	97	0.127	0.090	0.105	0.094	0.334	0.434	0.474
103	103	0.208	0.209	0.151	0.133	0.793	0.909	0.959
119	119	0.432	0.793	0.197	0.140	1.896	3.219	6.438
123	123	0.232	0.264	0.157	0.144	0.670	1.034	2.179
130	130	0.129	0.115	0.103	0.094	0.340	0.639	0.774
131	131	0.145	0.143	0.109	0.093	0.428	0.697	1.037
159	159	0.157	0.142	0.117	0.104	0.416	0.696	0.860
179	179	0.148	0.152	0.110	0.097	0.456	0.722	1.126
185	185	0.132	0.115	0.104	0.095	0.344	0.653	0.700
191	191	0.267	0.513	0.151	0.139	0.643	2.199	5.467
368	368	0.093	0.058	0.082	0.075	0.205	0.312	0.503
668	668	0.474	0.900	0.266	0.269	1.306	2.556	19.473

Figure 3.13.3: Box-and-whisker diagram of 24-hour episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

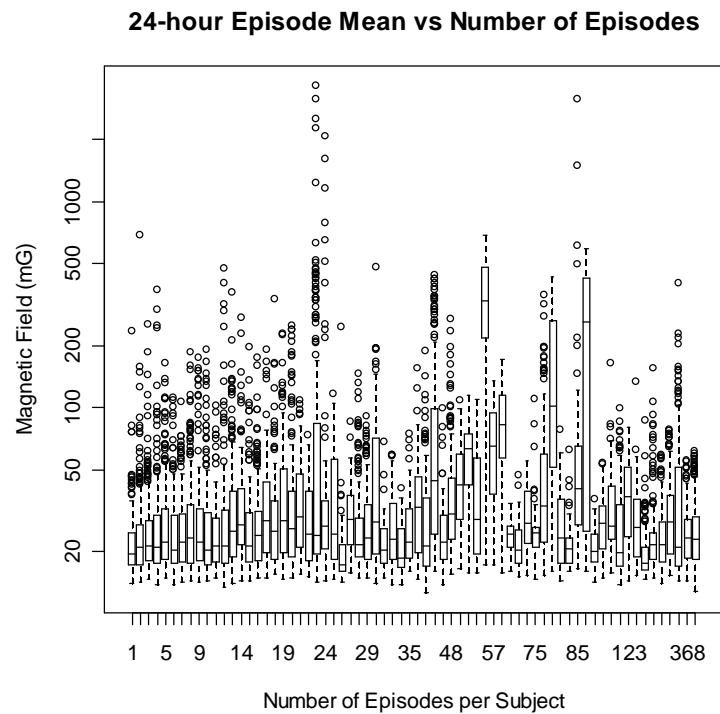


Table 3.13.3: Summary measures for 24-hour episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	133	24.84	21.42	22.08	19.50	44.74	79.24	235.20
2	206	30.19	49.54	24.23	20.98	59.20	146.44	683.20
3	195	28.95	25.78	24.77	21.25	54.40	146.12	254.40
4	236	31.10	38.34	24.95	21.20	67.80	247.47	372.41
5	235	30.12	21.77	26.00	22.23	68.48	124.83	164.70
6	204	26.71	16.16	23.93	20.50	53.09	101.06	111.10
7	175	27.26	14.16	24.79	22.30	59.76	72.40	107.10
8	232	31.13	23.65	26.52	23.50	77.66	141.41	185.70
9	135	34.22	32.01	27.31	22.50	118.66	153.74	175.50
10	160	31.82	29.15	25.77	20.50	89.83	154.78	189.60
11	121	27.31	15.79	24.56	21.50	64.30	91.14	102.30
12	120	43.41	70.02	28.11	21.30	135.01	385.79	475.20
13	208	37.69	37.19	29.83	25.10	116.72	160.98	360.00
14	112	38.56	37.23	31.26	27.15	106.86	221.00	274.24
15	135	30.42	24.62	25.75	21.40	73.87	125.01	196.10
16	224	29.72	20.02	26.21	24.10	60.63	109.14	175.30
17	153	36.25	27.32	30.67	28.50	75.06	157.85	190.10
18	108	36.34	39.12	28.77	25.05	84.38	164.61	334.40
19	133	41.56	36.67	32.80	28.30	116.30	204.94	228.80
20	120	47.15	53.06	32.99	26.05	179.52	240.00	251.20
21	63	38.93	24.38	33.06	29.50	93.36	105.22	107.70
22	66	30.41	15.38	27.21	24.51	62.78	69.29	74.10
23	161	173.12	472.72	48.02	24.10	475.20	2760.00	3620.80
24	96	107.69	305.32	36.17	26.70	545.20	1634.40	2075.20
25	75	38.55	26.64	31.32	24.30	93.94	108.43	116.20
26	52	24.25	31.80	20.15	17.38	37.32	141.83	244.80
27	27	33.59	16.78	30.49	28.70	67.46	81.96	85.50
28	168	29.68	21.17	25.72	21.80	75.86	122.25	145.90
29	145	29.69	15.98	26.61	23.30	64.62	79.43	90.90
30	150	52.03	54.05	37.50	27.95	143.87	193.57	481.60
31	62	23.01	8.61	21.92	20.40	32.48	55.25	68.30
32	64	27.63	11.96	25.53	23.18	54.84	58.72	59.10
34	102	21.12	6.08	20.37	18.74	32.68	36.48	40.50
35	70	27.51	12.89	25.35	22.45	53.82	70.71	74.30
38	76	38.29	24.54	32.87	33.05	77.70	132.10	154.30
39	156	31.48	24.72	26.19	21.52	73.65	127.58	188.90
40	160	91.74	105.38	55.03	44.58	341.12	419.20	436.80
41	82	26.72	14.32	24.43	22.40	48.10	84.30	98.80
48	144	44.64	40.62	35.40	30.37	126.73	219.36	270.40

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
49	49	45.66	22.24	40.75	42.30	88.62	104.37	108.50
51	51	61.47	24.65	55.88	63.01	104.70	113.70	115.09
52	52	40.31	25.47	33.58	28.61	86.40	102.36	109.86
55	55	335.44	184.39	250.91	331.20	604.00	683.55	689.60
57	57	68.92	33.31	59.96	65.50	125.74	133.57	135.70
59	59	87.55	41.27	76.07	83.50	152.91	165.69	172.30
60	60	23.45	4.01	23.10	24.58	28.21	30.96	34.50
70	70	22.18	6.34	21.44	20.50	33.67	43.17	46.90
74	74	30.58	11.38	28.63	27.40	52.49	54.24	55.70
75	75	26.71	13.71	24.97	24.83	39.57	90.35	110.70
76	76	66.33	72.93	43.93	33.33	197.74	324.80	353.60
77	77	166.22	139.76	103.89	101.50	422.32	430.78	432.00
79	79	28.23	13.58	25.64	23.50	53.80	64.26	78.30
84	84	22.03	6.90	21.31	20.67	32.92	47.63	62.90
85	85	116.09	374.78	49.56	40.57	215.28	1756.61	3124.80
90	90	240.49	193.16	127.30	262.40	538.91	566.19	590.40
91	91	21.53	5.01	21.01	20.10	31.20	32.83	35.77
97	97	28.43	9.60	26.95	27.50	46.94	53.12	53.70
103	103	35.20	20.05	31.61	26.63	67.36	82.99	163.80
119	119	28.13	16.98	24.68	19.90	64.26	84.21	98.50
123	123	38.17	15.98	34.80	36.90	64.16	76.80	80.50
130	130	29.80	14.57	27.37	26.40	53.22	61.31	134.10
131	131	20.53	8.59	19.56	17.64	33.80	53.86	87.10
159	159	26.64	18.08	23.77	21.70	64.30	98.12	154.80
179	179	24.60	9.14	23.26	21.80	43.72	57.39	58.95
185	185	31.81	15.26	28.81	27.90	63.74	74.65	78.03
191	191	43.12	47.51	30.73	20.98	128.25	220.16	404.80
368	368	24.82	7.66	23.80	23.30	39.62	50.70	55.10
668	668	25.20	8.60	23.94	23.20	42.44	53.00	61.90

Figure 3.13.4: Box-and-whisker diagram of Home episode duration by Episodes with Maximum Exceeding 16 mG

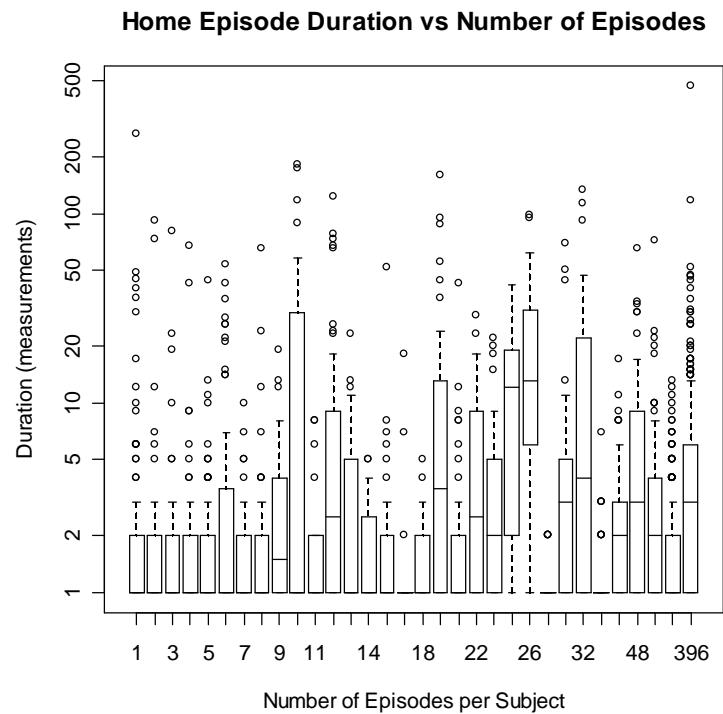


Table 3.13.4: Summary measures for Home episode duration by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	116	5.8	25.4	1.7	1.0	20.3	48.4	262.0
2	98	3.2	11.7	1.4	1.0	5.1	73.6	92.0
3	102	2.7	8.3	1.4	1.0	4.9	23.0	80.0
4	52	3.9	10.7	1.7	1.0	9.0	54.8	67.0
5	80	2.5	5.2	1.5	1.0	6.2	19.5	44.0
6	60	6.4	11.3	2.4	1.0	28.4	47.5	54.0
7	70	1.7	1.5	1.4	1.0	4.6	7.9	10.0
8	64	3.0	8.5	1.5	1.0	6.5	39.2	65.0
9	54	3.2	3.6	2.1	1.5	9.4	15.8	19.0
10	30	26.0	49.5	4.4	1.0	147.3	178.4	181.0
11	33	1.9	1.9	1.4	1.0	6.8	8.0	8.0
12	60	11.5	22.9	3.7	2.5	67.3	96.0	122.0
13	39	3.6	4.6	2.1	1.0	12.1	19.2	23.0
14	28	1.9	1.3	1.6	1.0	4.7	5.0	5.0
16	64	2.6	6.4	1.6	1.0	5.9	24.3	52.0
17	17	2.4	4.3	1.4	1.0	9.2	16.2	18.0
18	18	1.8	1.2	1.5	1.0	4.2	4.8	5.0
19	38	16.4	32.5	4.5	3.5	88.1	134.3	158.0
20	40	3.4	6.9	1.8	1.0	9.2	30.9	43.0
22	22	6.4	8.0	3.1	2.5	22.8	27.7	29.0
23	46	4.3	5.2	2.6	2.0	17.3	21.1	22.0
25	25	13.4	11.0	7.8	12.0	32.8	40.1	42.0
26	26	24.2	26.7	12.6	13.0	86.0	97.0	98.0
28	56	1.1	0.3	1.1	1.0	2.0	2.0	2.0
31	31	8.2	16.0	3.2	3.0	47.0	63.3	69.0
32	32	18.5	33.5	5.1	4.0	101.9	127.1	133.0
39	39	1.4	1.1	1.2	1.0	3.0	5.5	7.0
45	45	3.2	3.2	2.3	2.0	8.8	14.4	17.0
48	48	7.6	12.3	3.3	3.0	32.0	50.4	65.0
65	65	4.9	9.9	2.3	2.0	19.6	41.3	72.0
172	172	2.3	2.2	1.7	1.0	7.0	11.3	13.0
396	396	6.6	24.9	3.0	3.0	17.0	46.1	468.0

Figure 3.13.5: Box-and-whisker diagram of Home episode exposure by Episodes with Maximum Exceeding 16 mG

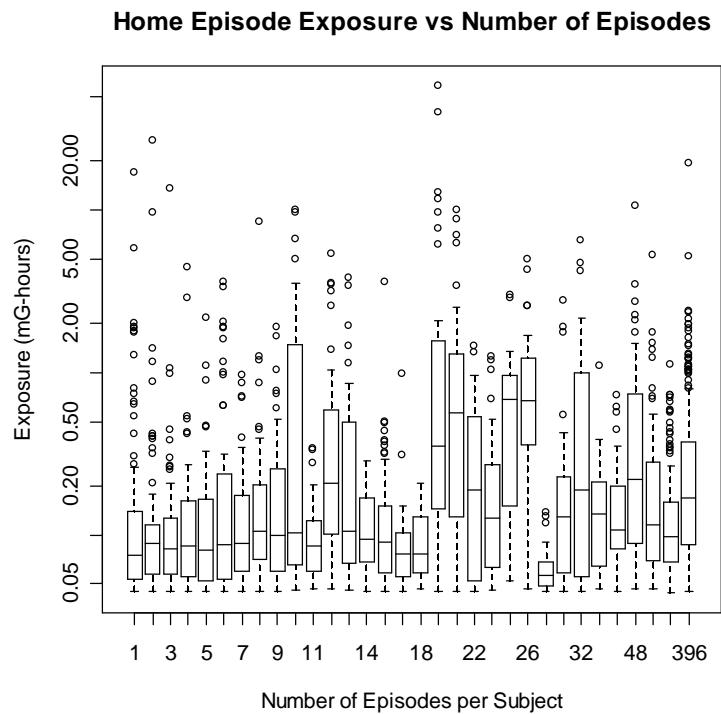


Table 3.13.5: Summary measures for Home episode exposure by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	116	0.401	1.693	0.112	0.075	1.772	5.247	17.082
2	98	0.504	2.850	0.104	0.089	0.489	10.097	26.748
3	102	0.251	1.349	0.095	0.082	0.296	1.053	13.662
4	52	0.263	0.715	0.109	0.085	0.523	3.655	4.454
5	80	0.164	0.279	0.102	0.081	0.458	1.314	2.148
6	60	0.392	0.751	0.140	0.088	1.891	3.432	3.593
7	70	0.151	0.180	0.105	0.088	0.560	0.890	0.957
8	64	0.312	1.059	0.131	0.105	0.794	3.921	8.447
9	54	0.255	0.369	0.142	0.100	0.859	1.787	1.912
10	30	1.443	2.781	0.269	0.104	8.304	9.965	10.078
11	33	0.112	0.080	0.093	0.085	0.298	0.338	0.340
12	60	0.580	1.010	0.247	0.206	3.196	4.278	5.368
13	39	0.471	0.848	0.180	0.105	2.063	3.651	3.809
14	28	0.117	0.065	0.103	0.095	0.224	0.271	0.286
16	64	0.187	0.447	0.108	0.091	0.425	1.640	3.594
17	17	0.143	0.226	0.091	0.076	0.443	0.876	0.984
18	18	0.095	0.049	0.085	0.076	0.178	0.203	0.209
19	38	4.234	11.284	0.560	0.356	16.795	50.925	57.493
20	40	1.423	2.385	0.491	0.565	7.029	9.552	10.058
22	22	0.365	0.425	0.183	0.189	1.301	1.435	1.466
23	46	0.238	0.285	0.148	0.126	0.947	1.217	1.243
25	25	0.794	0.757	0.471	0.685	2.565	2.968	3.000
26	26	1.099	1.252	0.598	0.676	3.875	4.822	4.994
28	56	0.062	0.019	0.060	0.057	0.097	0.133	0.138
31	31	0.341	0.626	0.150	0.129	1.823	2.508	2.769
32	32	0.841	1.516	0.258	0.188	4.402	5.897	6.454
39	39	0.181	0.180	0.135	0.135	0.382	0.823	1.088
45	45	0.171	0.155	0.129	0.108	0.540	0.675	0.723
48	48	0.769	1.647	0.284	0.222	2.539	7.275	10.676
65	65	0.334	0.713	0.152	0.116	1.350	3.010	5.216
172	172	0.150	0.154	0.112	0.098	0.470	0.722	1.126
396	396	0.367	1.058	0.190	0.169	1.075	2.126	19.473

Figure 3.13.6: Box-and-whisker diagram of Home episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

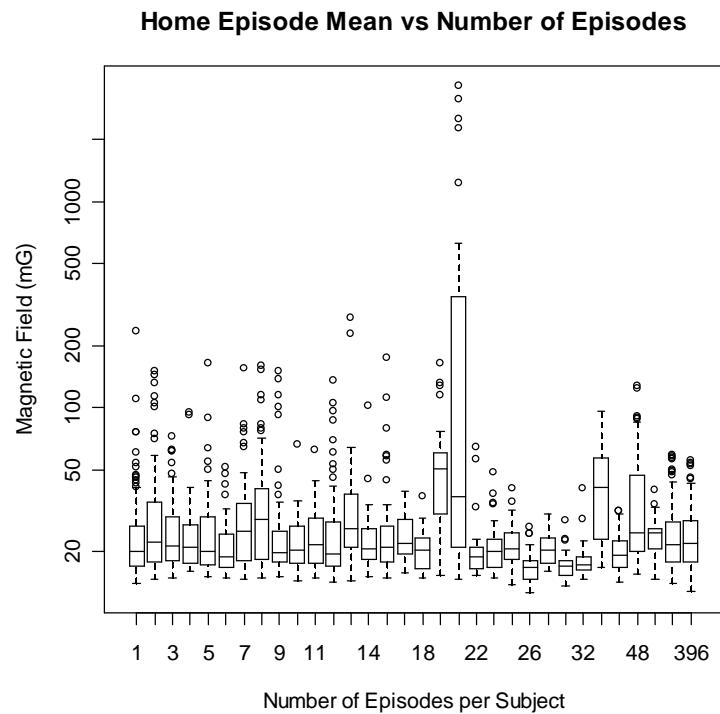


Table 3.13.6: Summary measures for Home episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	116	27.00	24.03	23.34	20.10	52.20	104.54	235.20
2	98	32.01	26.66	26.61	22.20	101.91	143.93	151.50
3	102	25.58	11.27	23.81	21.30	47.92	62.69	72.30
4	52	25.57	15.36	23.24	21.10	40.02	93.87	95.30
5	80	26.88	19.72	23.81	20.00	50.32	104.82	164.70
6	60	22.07	7.84	21.04	18.89	37.93	49.44	51.50
7	70	30.87	21.37	26.94	25.11	72.21	105.37	154.80
8	64	38.71	30.72	31.45	28.98	105.06	155.87	159.90
9	54	30.88	29.96	24.65	19.83	105.60	143.40	150.95
10	30	23.22	9.84	21.88	20.31	33.45	57.14	65.90
11	33	24.93	10.58	23.26	21.70	42.34	57.01	62.90
12	60	29.03	24.09	24.06	19.45	86.63	117.81	134.80
13	39	41.19	51.56	30.71	26.00	80.86	257.38	274.24
14	28	25.25	16.55	22.85	20.70	40.98	87.24	102.90
16	64	28.33	24.55	24.20	21.20	58.88	135.74	175.30
17	17	24.56	7.37	23.59	21.90	37.50	38.78	39.10
18	18	21.06	5.74	20.41	20.37	30.27	35.57	36.90
19	38	53.20	33.45	45.19	50.43	127.98	152.07	164.45
20	40	441.29	873.62	96.89	37.38	2530.40	3438.59	3620.80
22	22	22.95	12.71	21.00	19.10	55.13	62.62	64.30
23	46	21.60	6.58	20.84	20.08	34.40	43.71	48.30
25	25	22.53	6.21	21.81	20.90	34.27	39.16	40.50
26	26	17.39	3.55	17.07	16.74	24.48	26.00	26.50
28	56	20.84	3.75	20.52	20.30	27.55	29.71	30.70
31	31	17.40	2.99	17.19	17.02	22.73	26.68	28.30
32	32	18.57	4.87	18.14	17.43	25.57	36.92	40.50
39	39	44.63	21.31	39.68	41.40	77.96	94.01	96.90
45	45	20.70	4.89	20.19	19.40	30.58	31.70	31.70
48	48	37.53	27.28	31.27	24.89	89.99	125.51	127.30
65	65	23.90	4.58	23.47	24.72	31.20	36.19	39.90
172	172	24.50	9.09	23.17	21.65	43.39	57.42	58.95
396	396	23.78	7.69	22.71	21.95	39.15	46.15	55.65

Figure 3.13.7: Box-and-whisker diagram of In-bed episode duration by Episodes with Maximum Exceeding 16 mG

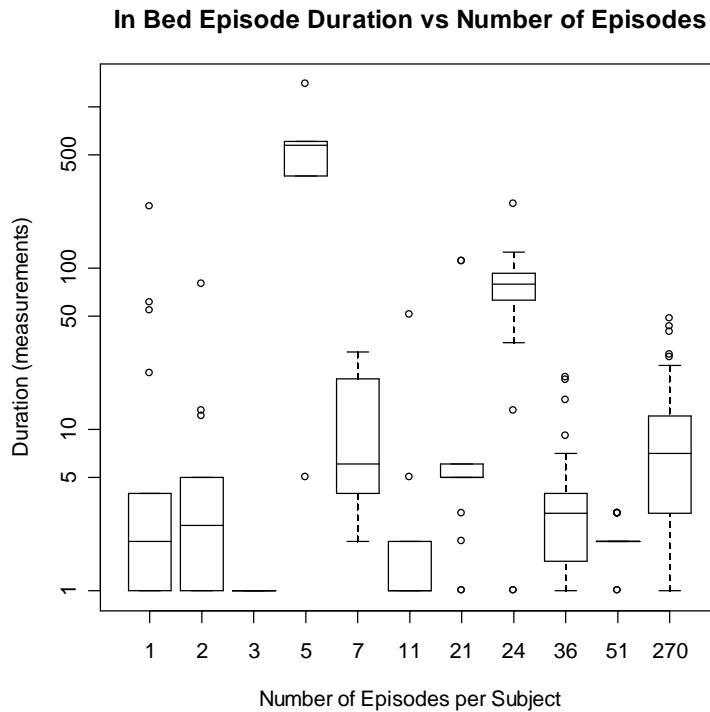


Table 3.13.7: Summary measures for In-bed episode duration by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	17	23.5	58.6	3.7	2.0	96.6	210.5	239.0
2	14	9.4	20.7	3.1	2.5	36.5	71.3	80.0
3	3	1.0	0.0	1.0	1.0	1.0	1.0	1.0
5	5	583.6	499.6	244.3	570.0	1216.2	1338.4	1369.0
7	7	12.4	11.2	8.1	6.0	28.2	29.6	30.0
11	11	6.1	14.9	1.9	1.0	28.0	46.4	51.0
21	21	14.6	31.6	5.7	5.0	109.0	109.8	110.0
24	24	78.5	48.0	53.1	80.0	122.0	221.3	250.0
36	36	4.2	4.9	2.8	3.0	16.3	20.7	21.0
51	51	2.1	0.4	2.0	2.0	3.0	3.0	3.0
270	270	8.4	6.6	6.1	7.0	16.6	32.4	48.0

Figure 3.13.8: Box-and-whisker diagram of In-bed episode exposure by Episodes with Maximum Exceeding 16 mG

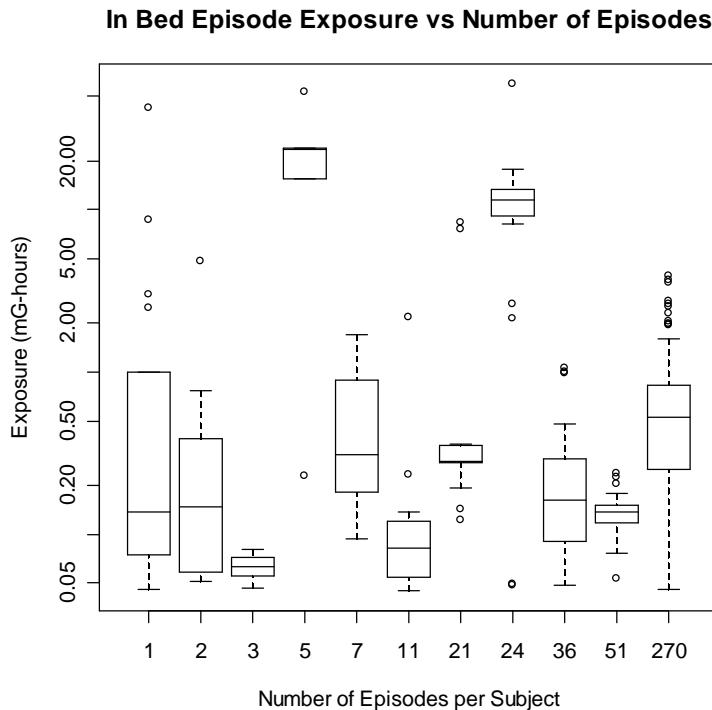


Table 3.13.8: Summary measures for In-bed episode exposure by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	17	3.450	10.186	0.313	0.136	15.343	36.735	42.083
2	14	0.556	1.238	0.183	0.147	2.171	4.256	4.777
3	3	0.064	0.017	0.062	0.064	0.079	0.080	0.081
5	5	23.281	19.302	10.116	23.318	47.415	52.090	53.259
7	7	0.610	0.594	0.386	0.307	1.496	1.667	1.709
11	11	0.281	0.631	0.108	0.082	1.205	1.982	2.176
21	21	1.004	2.288	0.373	0.283	7.500	8.099	8.249
24	24	12.129	10.962	6.962	11.439	17.393	49.387	58.823
36	36	0.247	0.262	0.168	0.164	0.992	1.037	1.056
51	51	0.135	0.033	0.131	0.138	0.191	0.231	0.237
270	270	0.634	0.568	0.436	0.529	1.458	2.971	3.915

Figure 3.13.9: Box-and-whisker diagram of In-bed episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

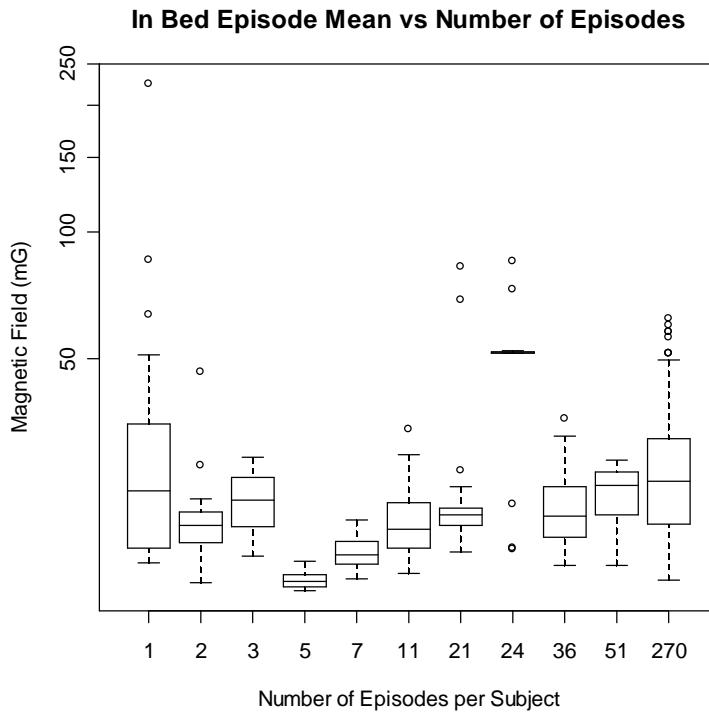


Table 3.13.9: Summary measures for In-bed episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	17	42.16	50.61	30.31	24.10	113.36	201.87	224.00
2	14	21.81	7.77	20.91	20.00	34.26	44.00	46.43
3	3	22.97	6.10	22.41	22.90	28.48	28.98	29.10
5	5	14.93	0.95	14.90	14.73	16.17	16.37	16.42
7	7	17.35	1.88	17.26	17.00	19.88	20.39	20.51
11	11	21.24	5.77	20.62	19.50	31.60	33.28	33.70
21	21	26.26	16.73	23.68	21.14	68.90	79.94	82.70
24	24	49.87	14.21	47.24	51.62	69.79	81.99	84.70
36	36	22.34	5.05	21.84	21.05	31.90	34.62	35.77
51	51	23.65	3.80	23.33	24.80	28.20	28.47	28.50
270	270	27.29	9.44	25.87	25.41	47.12	57.82	61.90

Figure 3.13.10: Box-and-whisker diagram of Work episode duration by Episodes with Maximum Exceeding 16 mG

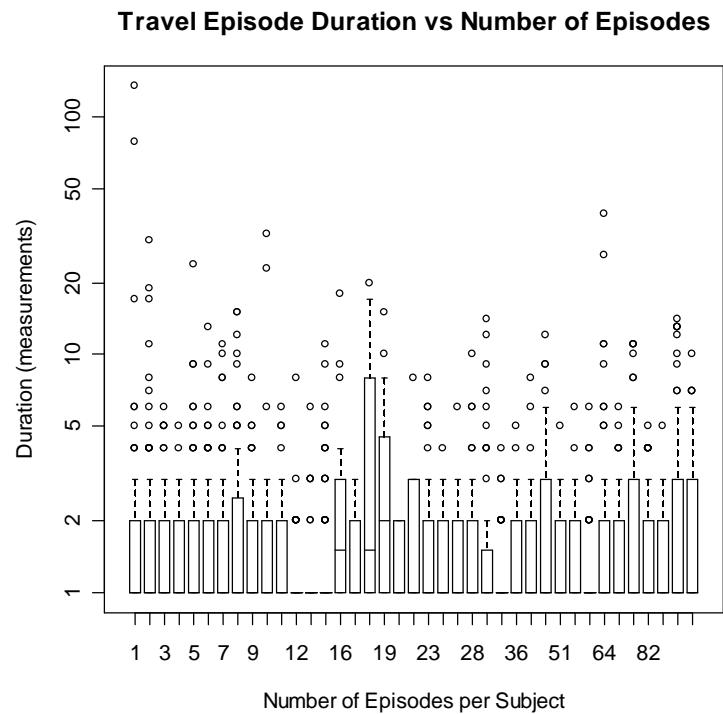


Table 3.13.10: Summary measures for Work episode duration by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	109	3.5	14.7	1.4	1.0	4.6	73.1	134.0
2	86	2.5	4.2	1.6	1.0	7.8	20.7	30.0
3	75	1.5	1.1	1.3	1.0	4.3	5.3	6.0
4	92	1.5	0.8	1.3	1.0	3.0	4.1	5.0
5	115	1.9	2.5	1.4	1.0	5.0	9.0	24.0
6	54	2.1	2.2	1.6	1.0	5.3	10.9	13.0
7	98	1.8	1.8	1.4	1.0	4.1	10.0	11.0
8	72	2.5	3.0	1.7	1.0	9.5	15.0	15.0
9	54	1.6	1.4	1.3	1.0	4.3	6.4	8.0
10	30	3.2	6.8	1.6	1.0	15.4	29.4	32.0
11	44	1.6	1.2	1.4	1.0	4.9	5.6	6.0
12	48	1.4	1.1	1.2	1.0	2.0	5.7	8.0
13	26	1.5	1.1	1.3	1.0	3.0	5.3	6.0
14	70	1.7	1.8	1.4	1.0	5.0	9.6	11.0
16	32	2.8	3.4	1.9	1.5	8.5	15.2	18.0
17	17	1.4	0.6	1.3	1.0	2.2	2.8	3.0
18	18	4.7	5.8	2.6	1.5	17.5	19.5	20.0
19	19	3.6	3.8	2.5	2.0	10.5	14.1	15.0
20	20	1.4	0.5	1.3	1.0	2.0	2.0	2.0
22	22	1.9	1.6	1.6	1.0	3.0	7.0	8.0
23	69	1.8	1.4	1.4	1.0	5.0	6.6	8.0
26	26	1.4	0.8	1.3	1.0	2.8	3.8	4.0
27	54	1.5	0.9	1.3	1.0	3.0	4.4	6.0
28	140	1.5	1.1	1.3	1.0	3.0	6.0	10.0
30	60	2.1	2.6	1.4	1.0	7.1	12.8	14.0
34	102	1.1	0.5	1.1	1.0	2.0	3.0	4.0
36	36	1.7	1.0	1.5	1.0	3.3	4.7	5.0
43	43	1.7	1.4	1.4	1.0	3.9	7.2	8.0
48	48	2.5	2.6	1.8	1.0	8.3	10.6	12.0
51	51	1.6	0.8	1.4	1.0	3.0	4.0	5.0
56	56	1.6	0.9	1.4	1.0	3.0	4.9	6.0
58	58	1.4	0.9	1.2	1.0	3.2	4.9	6.0
64	64	2.9	5.9	1.6	1.0	10.7	30.8	39.0
73	73	1.6	1.0	1.4	1.0	4.0	5.3	6.0
79	79	2.5	2.5	1.8	1.0	8.2	11.0	11.0
82	82	1.6	1.0	1.4	1.0	4.0	4.2	5.0
87	87	1.4	0.7	1.3	1.0	3.0	3.3	5.0
94	94	2.6	3.1	1.7	1.0	10.7	13.1	14.0
122	122	2.0	1.6	1.6	1.0	5.0	7.0	10.0

Figure 3.13.11: Box-and-whisker diagram of Work episode exposure by Episodes with Maximum Exceeding 16 mG

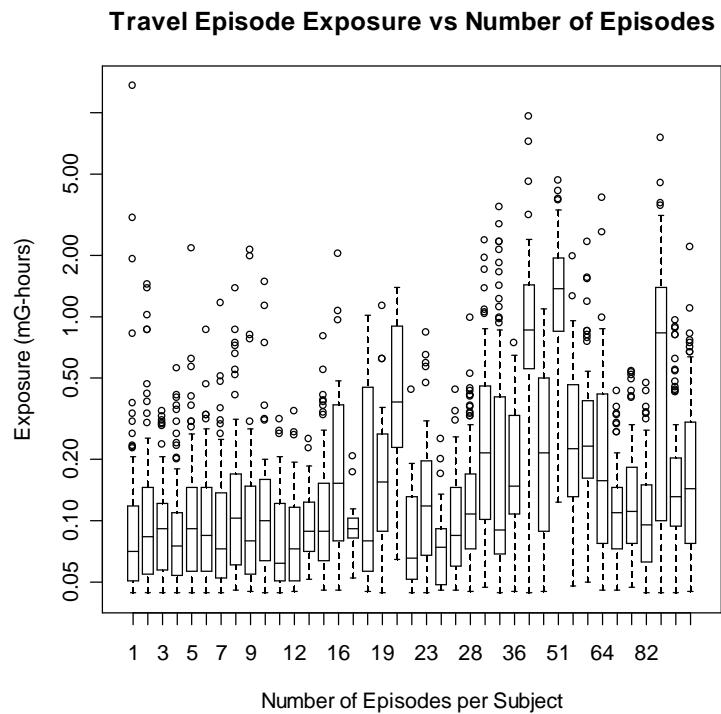


Table 3.13.11: Summary measures for Work episode exposure by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	109	0.267	1.316	0.091	0.070	0.320	2.950	13.413
2	86	0.168	0.255	0.103	0.084	0.758	1.372	1.425
3	75	0.108	0.071	0.092	0.091	0.298	0.330	0.346
4	92	0.107	0.093	0.086	0.075	0.323	0.427	0.556
5	115	0.134	0.212	0.097	0.091	0.305	0.613	2.150
6	54	0.131	0.136	0.099	0.085	0.328	0.652	0.861
7	98	0.120	0.137	0.091	0.073	0.299	0.529	1.168
8	72	0.180	0.225	0.119	0.104	0.686	1.007	1.374
9	54	0.203	0.393	0.108	0.080	0.786	2.041	2.107
10	30	0.219	0.330	0.126	0.100	0.959	1.379	1.478
11	44	0.094	0.067	0.079	0.062	0.257	0.296	0.313
12	48	0.097	0.066	0.082	0.073	0.237	0.309	0.342
13	26	0.105	0.051	0.096	0.089	0.215	0.244	0.251
14	70	0.139	0.132	0.105	0.088	0.384	0.622	0.793
16	32	0.304	0.399	0.181	0.152	1.007	1.729	2.027
17	17	0.099	0.037	0.094	0.091	0.178	0.199	0.205
18	18	0.257	0.313	0.139	0.080	0.998	1.012	1.015
19	19	0.249	0.274	0.164	0.156	0.673	1.041	1.133
20	20	0.564	0.453	0.393	0.381	1.336	1.384	1.396
22	22	0.102	0.087	0.083	0.066	0.189	0.384	0.436
23	69	0.160	0.150	0.121	0.118	0.525	0.706	0.834
26	26	0.088	0.050	0.079	0.074	0.193	0.237	0.249
27	54	0.115	0.082	0.096	0.085	0.276	0.386	0.437
28	140	0.146	0.121	0.116	0.108	0.367	0.495	0.989
30	60	0.397	0.473	0.234	0.216	1.392	2.117	2.373
34	102	0.383	0.636	0.160	0.090	1.822	2.835	3.458
36	36	0.222	0.171	0.172	0.148	0.536	0.704	0.735
43	43	1.411	1.788	0.863	0.867	4.402	8.527	9.520
48	48	0.312	0.246	0.222	0.217	0.751	0.943	1.097
51	51	1.560	1.062	1.203	1.369	3.740	4.360	4.618
56	56	0.337	0.339	0.231	0.224	0.915	1.567	1.954
58	58	0.379	0.414	0.262	0.234	1.232	1.890	2.330
64	64	0.347	0.573	0.191	0.157	0.866	3.035	3.798
73	73	0.129	0.082	0.109	0.109	0.310	0.381	0.432
79	79	0.157	0.119	0.127	0.112	0.435	0.535	0.539
82	82	0.128	0.092	0.105	0.096	0.333	0.440	0.474
87	87	1.054	1.198	0.478	0.831	3.054	4.919	7.480
94	94	0.203	0.197	0.151	0.131	0.682	0.886	0.959
122	122	0.234	0.265	0.158	0.144	0.670	1.037	2.179

Figure 3.13.12: Box-and-whisker diagram of Work episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

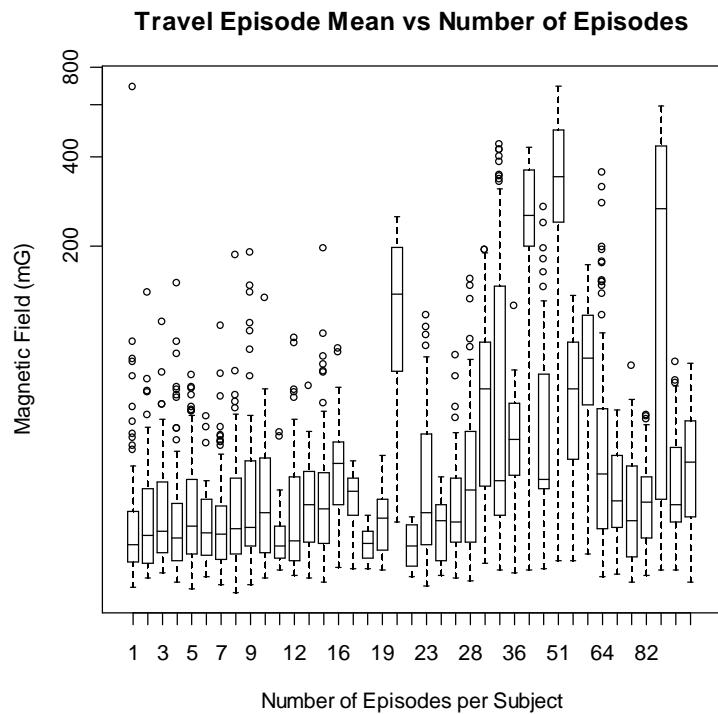


Table 3.13.12: Summary measures for Work episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	109	30.39	64.63	22.85	19.50	54.38	94.08	683.20
2	86	26.64	16.86	23.89	21.10	52.20	81.04	138.50
3	75	27.83	15.39	25.20	21.66	53.56	84.16	111.10
4	92	26.90	19.60	23.55	20.50	63.53	99.98	149.30
5	115	27.00	12.53	24.84	22.70	55.36	66.53	73.10
6	54	23.72	7.87	22.69	21.43	35.88	50.57	52.90
7	98	25.17	13.17	23.19	21.34	45.19	74.51	107.10
8	72	29.67	22.85	25.77	22.25	57.45	107.46	185.70
9	54	37.52	36.43	28.96	22.30	119.69	166.86	189.60
10	30	32.93	23.42	28.28	25.17	61.75	114.08	133.80
11	44	21.40	6.36	20.75	19.40	29.69	46.10	46.70
12	48	28.74	19.45	24.75	20.20	64.61	95.91	97.70
13	26	28.82	12.00	26.81	26.60	46.60	62.15	67.10
14	70	32.99	26.48	28.03	25.82	77.70	130.14	196.10
16	32	38.35	18.35	34.61	36.83	75.84	89.02	89.70
17	17	27.75	6.39	26.98	29.70	36.22	37.24	37.50
18	18	19.80	2.68	19.63	19.68	24.20	24.44	24.50
19	19	24.76	6.90	23.89	24.10	39.10	39.10	39.10
20	20	136.32	74.59	111.13	137.00	240.56	249.07	251.20
22	22	19.55	3.05	19.33	19.38	23.70	24.17	24.30
23	69	35.98	24.65	30.13	25.20	89.06	109.06	116.20
26	26	23.14	5.63	22.49	23.60	32.55	33.05	33.10
27	54	28.25	13.59	26.04	23.30	54.07	78.29	85.50
28	140	37.44	24.17	32.11	29.90	81.17	140.28	154.30
30	60	73.59	48.20	58.99	65.70	169.21	193.42	194.30
34	102	97.73	119.20	52.50	32.30	346.88	419.20	436.80
36	36	46.45	20.40	42.39	44.35	68.64	107.69	124.70
43	43	263.37	114.95	224.45	254.40	429.24	431.33	432.00
48	48	61.09	59.32	45.25	32.66	190.36	254.66	270.40
51	51	359.96	168.19	303.11	340.80	605.60	684.00	689.60
56	56	69.46	33.35	60.44	65.95	125.95	133.61	135.70
58	58	88.78	40.51	78.15	83.50	152.92	165.80	172.30
64	64	66.43	74.64	43.91	33.93	196.98	329.41	353.60
73	73	30.76	11.35	28.83	27.50	52.54	54.26	55.70
79	79	28.23	13.58	25.64	23.50	53.80	64.26	78.30
82	82	28.43	9.83	26.90	27.30	49.34	53.21	53.70
87	87	248.15	191.92	136.10	267.20	539.01	567.01	590.40
94	94	34.22	14.79	31.63	26.83	65.32	70.67	80.90
122	122	38.32	15.95	34.97	37.25	64.18	76.87	80.50

Figure 3.13.13: Box-and-whisker diagram of Travel episode duration by Episodes with Maximum Exceeding 16 mG

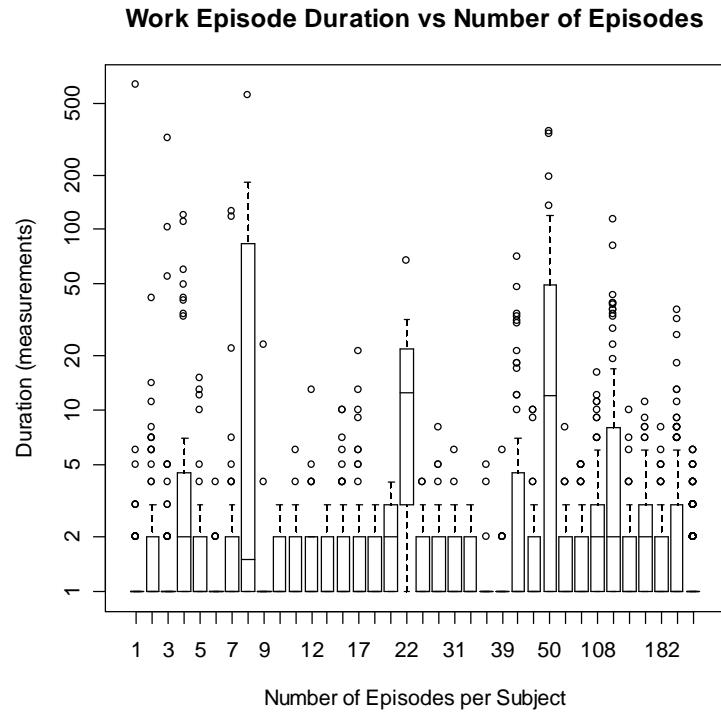


Table 3.13.13: Summary measures for Travel episode duration by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	63	11.3	78.7	1.4	1.0	3.0	241.6	626.0
2	92	2.5	4.7	1.6	1.0	7.0	16.5	42.0
3	72	7.9	39.4	1.5	1.0	5.0	164.6	318.0
4	56	10.5	24.1	2.8	2.0	51.5	114.1	119.0
5	65	2.1	2.8	1.4	1.0	9.0	13.7	15.0
6	24	1.3	0.7	1.2	1.0	2.0	3.5	4.0
7	63	5.9	21.4	1.8	1.0	6.8	121.0	126.0
8	16	72.6	141.0	8.1	1.5	274.3	493.3	548.0
9	9	3.8	7.3	1.7	1.0	15.4	21.5	23.0
10	30	1.5	0.6	1.4	1.0	2.6	3.0	3.0
11	33	1.5	1.1	1.3	1.0	3.4	5.4	6.0
12	36	1.8	2.2	1.4	1.0	4.3	10.2	13.0
15	30	1.4	0.7	1.3	1.0	3.0	3.0	3.0
16	64	2.0	1.9	1.5	1.0	5.9	10.0	10.0
17	51	2.6	3.7	1.7	1.0	9.5	17.0	21.0
18	72	1.4	0.7	1.3	1.0	3.0	3.0	3.0
21	21	2.0	1.1	1.7	2.0	4.0	4.0	4.0
22	22	15.2	14.9	8.6	12.5	31.7	59.7	67.0
23	46	1.6	0.9	1.4	1.0	3.0	4.0	4.0
28	28	2.0	1.7	1.6	1.0	5.0	7.2	8.0
31	31	1.6	1.1	1.4	1.0	3.5	5.4	6.0
32	32	1.4	0.7	1.3	1.0	3.0	3.0	3.0
33	33	1.2	0.9	1.1	1.0	2.8	4.7	5.0
39	39	1.3	0.8	1.1	1.0	2.0	4.5	6.0
40	80	6.1	11.6	2.4	1.0	31.1	52.6	70.0
48	48	2.0	2.2	1.5	1.0	7.3	10.0	10.0
50	50	42.9	74.4	10.7	12.0	169.1	342.2	350.0
70	70	1.7	1.2	1.4	1.0	3.6	5.2	8.0
84	84	1.7	1.1	1.5	1.0	4.0	5.0	5.0
108	108	2.7	2.7	1.9	2.0	9.0	11.9	16.0
114	114	8.0	15.7	3.0	2.0	36.7	76.1	114.0
123	123	1.6	1.2	1.3	1.0	3.0	6.8	10.0
147	147	2.2	1.8	1.8	2.0	6.0	8.5	11.0
182	182	1.5	1.0	1.3	1.0	3.0	5.2	8.0
191	191	2.8	4.5	1.8	1.0	8.0	26.6	36.0
368	368	1.4	0.8	1.2	1.0	3.0	5.0	6.0

Figure 3.13.14: Box-and-whisker diagram of Travel episode exposure by Episodes with Maximum Exceeding 16 mG

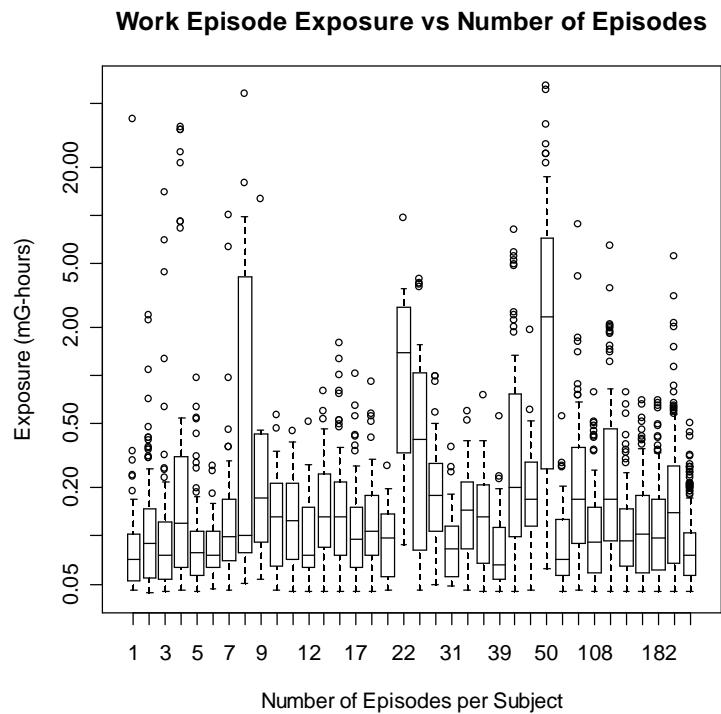


Table 3.13.14: Summary measures for Travel episode exposure by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	63	0.723	5.014	0.087	0.072	0.238	15.367	39.885
2	92	0.187	0.352	0.108	0.089	0.440	2.233	2.381
3	72	0.461	1.863	0.103	0.075	0.919	8.934	13.852
4	56	3.258	8.783	0.237	0.119	26.950	34.542	35.004
5	65	0.131	0.161	0.093	0.079	0.512	0.750	0.963
6	24	0.097	0.061	0.085	0.075	0.241	0.268	0.273
7	63	0.393	1.454	0.125	0.100	0.445	7.692	9.924
8	16	5.996	14.410	0.550	0.101	26.216	51.222	57.473
9	9	1.588	4.148	0.253	0.173	7.767	11.667	12.642
10	30	0.166	0.127	0.130	0.131	0.407	0.536	0.566
11	33	0.154	0.103	0.127	0.124	0.351	0.429	0.452
12	36	0.115	0.095	0.093	0.075	0.278	0.431	0.513
15	30	0.206	0.186	0.150	0.133	0.569	0.743	0.801
16	64	0.226	0.289	0.144	0.131	0.788	1.381	1.578
17	51	0.161	0.180	0.113	0.095	0.490	0.831	1.014
18	72	0.153	0.144	0.119	0.106	0.455	0.677	0.916
21	21	0.109	0.061	0.095	0.098	0.197	0.259	0.274
22	22	1.800	2.091	0.937	1.397	3.436	8.286	9.571
23	46	0.813	1.039	0.333	0.401	3.662	3.860	3.960
28	28	0.274	0.273	0.190	0.180	0.955	0.982	0.982
31	31	0.103	0.072	0.088	0.083	0.257	0.330	0.357
32	32	0.175	0.135	0.138	0.145	0.453	0.576	0.599
33	33	0.166	0.139	0.128	0.133	0.354	0.635	0.748
39	39	0.101	0.089	0.083	0.066	0.226	0.429	0.549
40	80	0.830	1.530	0.287	0.199	4.924	6.276	8.013
48	48	0.233	0.276	0.172	0.170	0.491	1.296	1.908
50	50	8.069	13.948	1.687	2.341	32.424	61.701	63.322
70	70	0.101	0.078	0.085	0.072	0.239	0.367	0.553
84	84	0.433	1.054	0.204	0.169	1.306	4.925	8.680
108	108	0.136	0.123	0.106	0.091	0.421	0.515	0.775
114	114	0.448	0.807	0.206	0.168	1.918	3.289	6.438
123	123	0.127	0.113	0.102	0.094	0.328	0.645	0.774
147	147	0.143	0.121	0.110	0.103	0.386	0.603	0.701
182	182	0.133	0.116	0.105	0.096	0.344	0.653	0.700
191	191	0.267	0.513	0.151	0.139	0.643	2.199	5.467
368	368	0.093	0.058	0.082	0.075	0.205	0.312	0.503

Figure 3.13.15: Box-and-whisker diagram of Travel episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

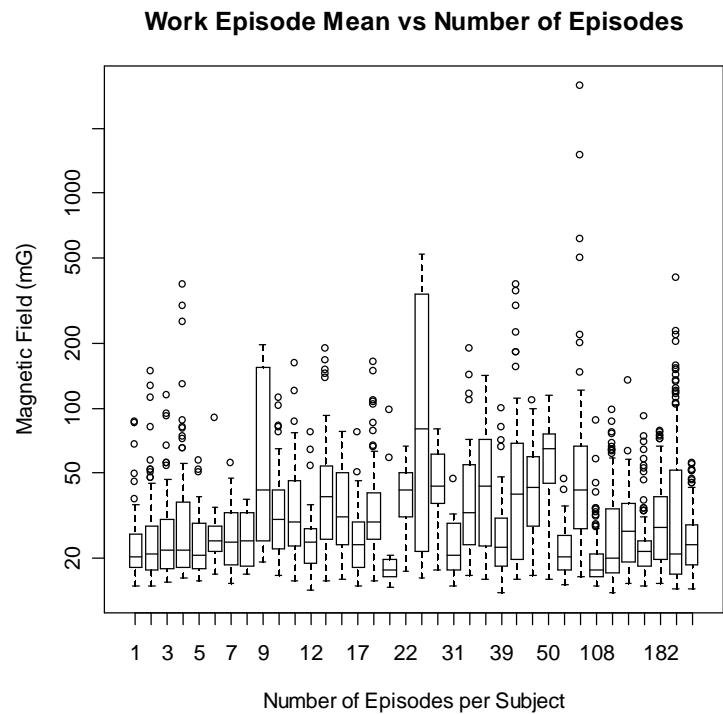


Table 3.13.15: Summary measures for Travel episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	63	25.32	14.11	23.15	20.30	48.92	85.03	85.90
2	92	28.15	21.73	24.37	21.10	54.11	128.21	147.50
3	72	28.69	18.65	25.26	22.00	60.56	99.62	114.60
4	56	46.33	67.84	30.18	21.92	159.00	332.61	372.41
5	65	24.28	8.88	23.03	20.70	38.66	53.51	56.60
6	24	27.65	14.24	25.82	24.30	34.70	77.67	90.50
7	63	26.48	9.72	24.95	23.70	46.68	50.39	55.10
8	16	25.53	7.67	24.48	24.30	37.71	37.75	37.76
9	9	80.10	71.16	55.20	41.90	184.28	195.16	197.87
10	30	40.13	26.39	33.80	30.40	93.43	108.12	110.70
11	33	41.64	31.58	34.42	29.43	99.46	148.68	162.70
12	36	26.12	13.11	24.10	23.70	56.20	72.41	77.10
15	30	56.35	49.57	42.24	38.60	159.07	183.37	190.10
16	64	37.41	17.20	33.74	31.15	64.70	77.92	78.30
17	51	26.34	11.18	24.63	23.30	44.60	63.30	76.50
18	72	39.41	28.46	33.56	29.50	105.26	152.52	164.80
21	21	23.42	19.53	20.15	17.60	58.90	90.74	98.70
22	22	41.37	12.89	39.30	41.58	62.58	65.90	66.70
23	46	183.82	180.24	85.26	79.75	463.20	499.84	520.00
28	28	47.47	17.84	43.98	43.75	76.85	80.03	80.30
31	31	23.15	7.02	22.27	20.80	32.00	42.46	46.90
32	32	47.03	39.30	37.64	32.60	127.58	174.39	188.90
33	33	50.44	33.20	41.24	43.50	111.30	134.30	142.30
39	39	29.86	19.25	26.05	22.50	72.08	92.00	98.80
40	80	61.27	68.63	42.59	39.90	183.90	352.58	372.80
48	48	45.98	22.36	41.00	42.90	89.63	104.46	108.50
50	50	62.09	24.49	56.57	64.74	105.32	113.72	115.09
70	70	22.18	6.34	21.44	20.50	33.67	43.17	46.90
84	84	117.28	376.87	50.22	41.53	216.24	1772.90	3124.80
108	108	20.72	9.23	19.63	17.65	33.89	56.80	87.10
114	114	28.40	17.18	24.89	20.00	64.66	84.68	98.50
123	123	29.97	14.71	27.52	26.70	53.67	61.64	134.10
147	147	23.99	11.18	22.51	21.60	48.70	72.08	91.90
182	182	31.97	15.33	28.95	28.00	64.16	74.72	78.03
191	191	43.12	47.51	30.73	20.98	128.25	220.16	404.80
368	368	24.82	7.66	23.80	23.30	39.62	50.70	55.10

Figure 3.13.16: Box-and-whisker diagram of Other episode duration by Episodes with Maximum Exceeding 16 mG

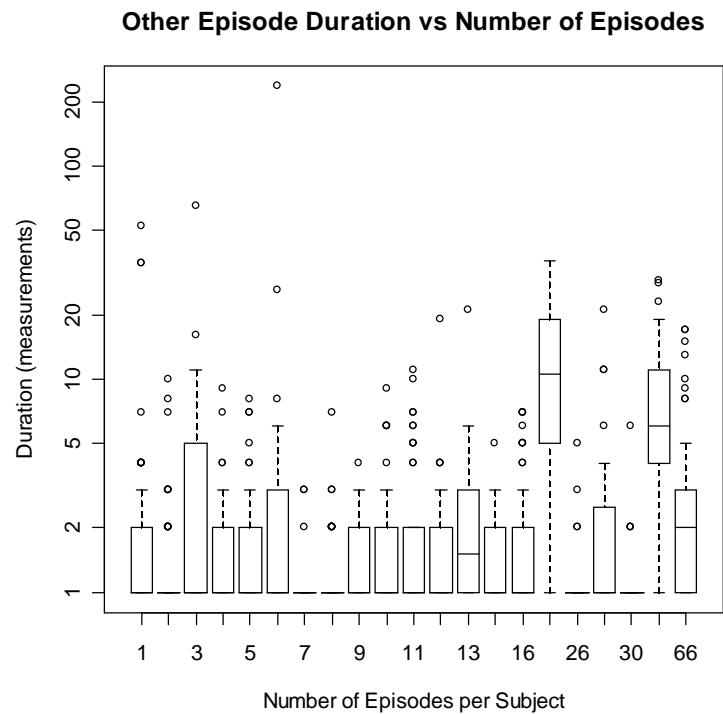


Table 3.13.16: Summary measures for Other episode duration by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	63	3.6	8.6	1.7	1.0	6.7	41.5	52.0
2	68	1.5	1.6	1.2	1.0	3.0	8.7	10.0
3	54	4.2	9.1	2.0	1.0	11.0	39.0	65.0
4	48	1.9	1.6	1.5	1.0	4.0	8.1	9.0
5	70	1.6	1.5	1.3	1.0	4.6	7.3	8.0
6	48	7.5	33.9	1.9	1.0	7.3	137.3	236.0
7	35	1.1	0.5	1.1	1.0	2.3	3.0	3.0
8	48	1.4	1.0	1.2	1.0	2.7	5.1	7.0
9	54	1.5	0.8	1.3	1.0	3.0	3.5	4.0
10	30	2.2	2.0	1.7	1.0	6.0	8.1	9.0
11	55	2.3	2.3	1.7	1.0	7.0	10.5	11.0
12	24	2.3	3.7	1.5	1.0	4.0	15.6	19.0
13	26	2.8	4.0	1.9	1.5	5.8	17.3	21.0
14	14	1.6	1.2	1.3	1.0	3.7	4.7	5.0
16	48	2.1	1.8	1.6	1.0	6.7	7.0	7.0
22	22	12.3	9.0	8.7	10.5	23.9	33.5	36.0
26	26	1.3	0.9	1.2	1.0	2.8	4.5	5.0
27	27	3.0	4.6	1.7	1.0	11.0	18.4	21.0
30	30	1.3	0.9	1.1	1.0	2.0	4.8	6.0
33	33	8.5	7.3	5.9	6.0	25.0	28.7	29.0
66	66	3.4	3.7	2.4	2.0	12.3	17.0	17.0

Figure 3.13.17: Box-and-whisker diagram of Other episode exposure by Episodes with Maximum Exceeding 16 mG

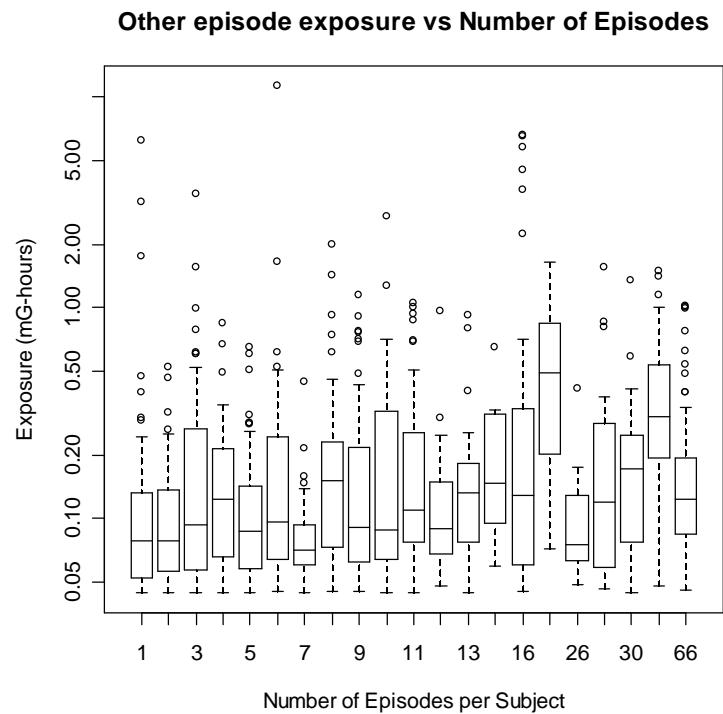


Table 3.13.17: Summary measures for Other episode exposure by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	63	0.275	0.876	0.101	0.079	0.463	4.312	6.174
2	68	0.111	0.089	0.091	0.078	0.259	0.485	0.525
3	54	0.274	0.525	0.131	0.094	0.856	2.451	3.470
4	48	0.168	0.155	0.127	0.123	0.439	0.760	0.841
5	70	0.128	0.119	0.099	0.087	0.297	0.616	0.647
6	48	0.422	1.609	0.136	0.096	0.577	6.713	11.196
7	35	0.093	0.071	0.080	0.071	0.175	0.365	0.441
8	48	0.255	0.360	0.157	0.151	0.859	1.729	2.004
9	54	0.202	0.249	0.125	0.090	0.760	1.017	1.138
10	30	0.297	0.530	0.143	0.088	1.014	2.300	2.723
11	55	0.228	0.256	0.146	0.110	0.886	1.022	1.049
12	24	0.150	0.186	0.109	0.089	0.291	0.814	0.968
13	26	0.191	0.214	0.133	0.132	0.700	0.890	0.921
14	14	0.217	0.160	0.172	0.146	0.439	0.605	0.646
16	48	0.753	1.669	0.187	0.129	5.313	6.508	6.556
22	22	0.565	0.425	0.406	0.490	1.284	1.567	1.639
26	26	0.104	0.075	0.089	0.075	0.174	0.352	0.411
27	27	0.247	0.335	0.142	0.119	0.845	1.373	1.553
30	30	0.219	0.242	0.157	0.171	0.505	1.119	1.338
33	33	0.419	0.368	0.292	0.306	1.248	1.466	1.492
66	66	0.201	0.226	0.138	0.123	0.731	1.007	1.023

Figure 3.13.18: Box-and-whisker diagram of Other episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

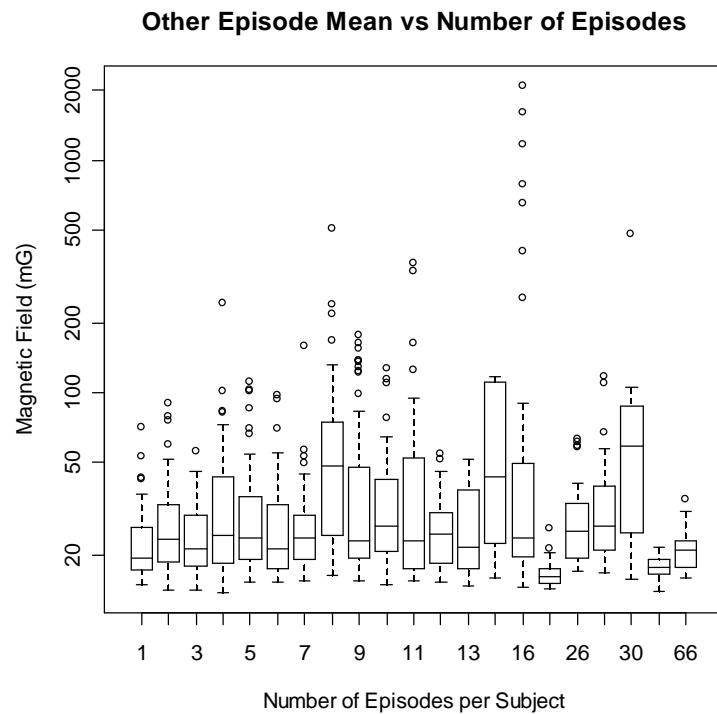


Table 3.13.18: Summary measures for Other episode mean magnetic field by Episodes with Maximum Exceeding 16 mG

Episodes /subject	N	Mean	Standard deviation	Geo mean	50th %ile	95th %ile	99th %ile	Maximum
1	63	23.30	10.02	21.85	19.30	41.83	59.86	70.90
2	68	29.28	15.82	26.31	23.50	57.10	82.53	89.90
3	54	24.91	9.14	23.53	21.40	41.57	50.52	55.74
4	48	37.80	36.39	30.06	24.45	82.94	175.19	240.90
5	70	31.27	20.90	27.07	23.60	78.57	104.89	111.10
6	48	28.77	18.39	25.20	21.20	64.36	95.79	97.90
7	35	30.50	24.56	26.54	23.70	53.90	124.15	158.90
8	48	67.36	81.67	46.73	48.20	200.72	383.56	510.40
9	54	48.26	46.36	34.30	23.10	143.98	169.30	175.50
10	30	37.96	30.22	30.87	26.55	111.60	123.46	127.40
11	55	47.48	65.83	31.48	23.20	135.78	346.18	360.00
12	24	27.28	10.72	25.61	24.73	50.69	53.50	54.10
13	26	27.81	12.72	25.33	21.70	48.58	50.65	51.30
14	14	59.74	41.75	46.22	43.70	116.86	117.69	117.90
16	48	169.63	417.33	42.91	23.80	1030.37	1857.12	2075.20
22	22	16.93	2.73	16.75	16.17	21.16	24.91	25.90
26	26	29.98	14.43	27.43	25.30	60.45	62.70	63.30
27	27	35.83	25.70	30.52	26.59	96.90	115.57	117.70
30	30	69.84	83.61	49.61	58.80	103.79	372.39	481.60
33	33	17.86	1.83	17.77	17.81	20.77	21.37	21.50
66	66	21.20	4.03	20.86	20.90	29.73	32.08	34.53

3.14 Relationship between number of episodes with maximum > 16 mG to various summaries of those episodes

In Figures 3.14.1 through 3.14.6, scatter plots are used to present the relationships between the number of episodes with maximum > 16 mG and: the maximum duration of such an episode for the subject; the maximum integrated exposure of such an episode for the subject; and the highest episode maximum of these episodes for the subject. The scatter plots are show on both an arithmetic scale and on a logarithmic scale. Note that some zero values are omitted on the log scale plots.

Figure 3.14.1: Longest episode duration versus number of episodes for episodes with maximum exceeding 16 mG

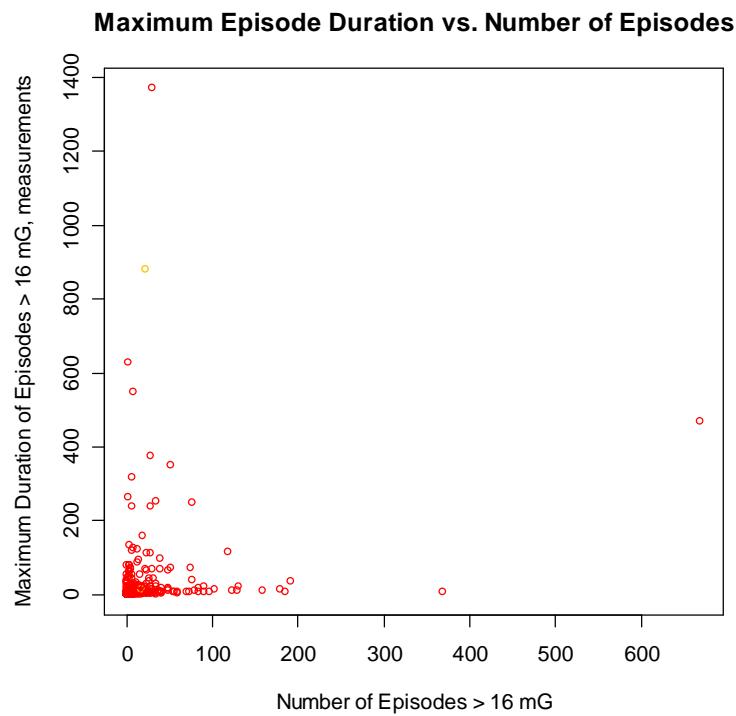


Figure 3.14.2: Longest episode duration versus number of episodes for episodes with maximum exceeding 16 mG (log scale)

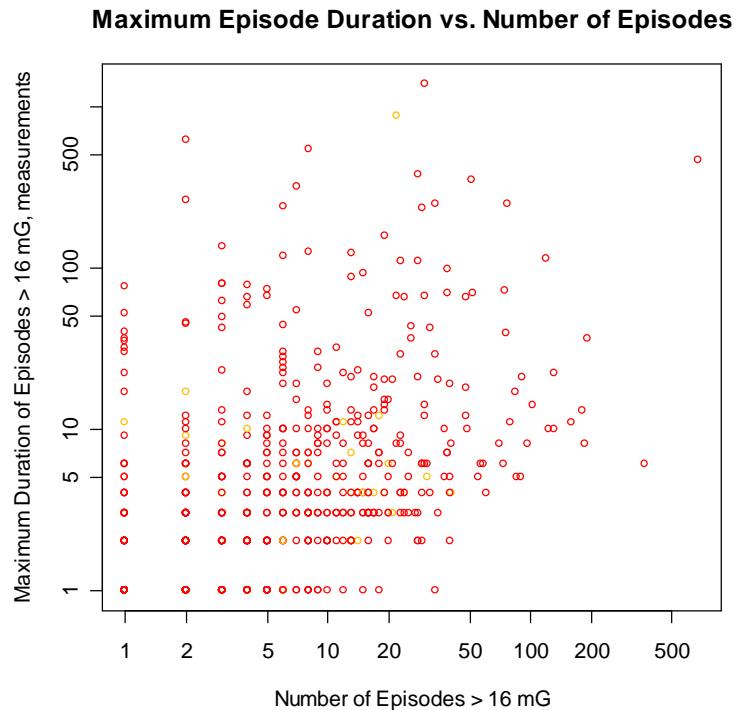


Figure 3.14.3: Highest episode exposure versus number of episodes for episodes with maximum exceeding 16 mG

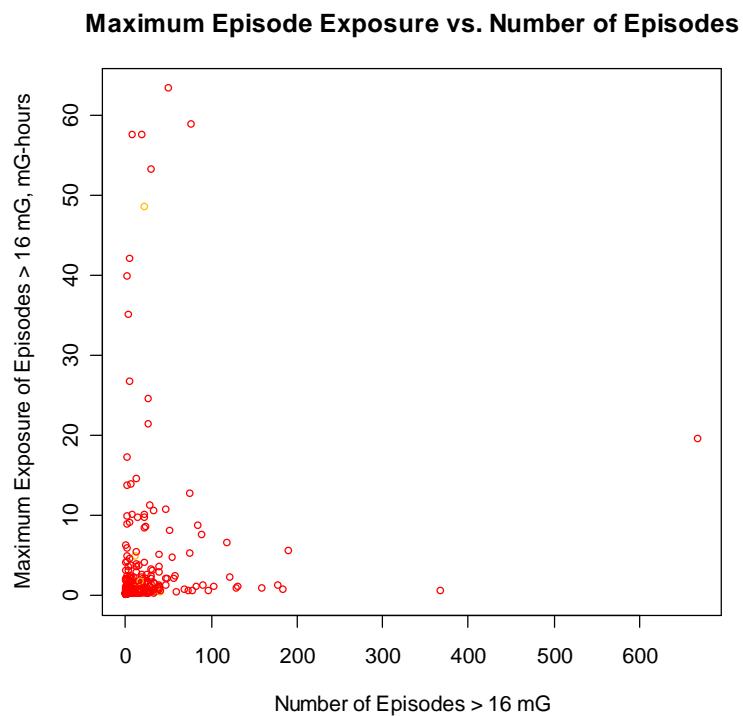


Figure 3.14.4: Highest episode exposure versus number of episodes for episodes with maximum exceeding 16 mG (log scale)

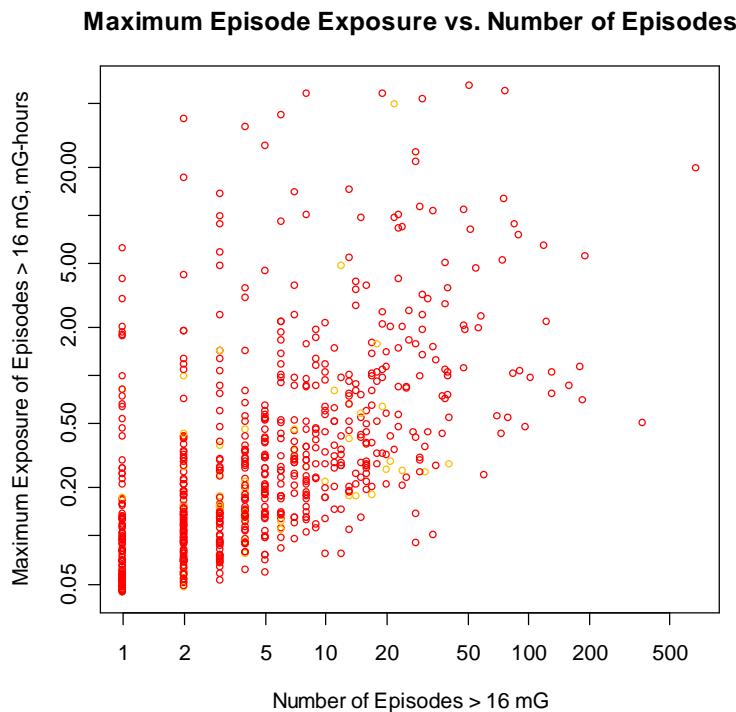


Figure 3.14.5: Highest episode maximum versus number of episodes for episodes with maximum exceeding 16 mG

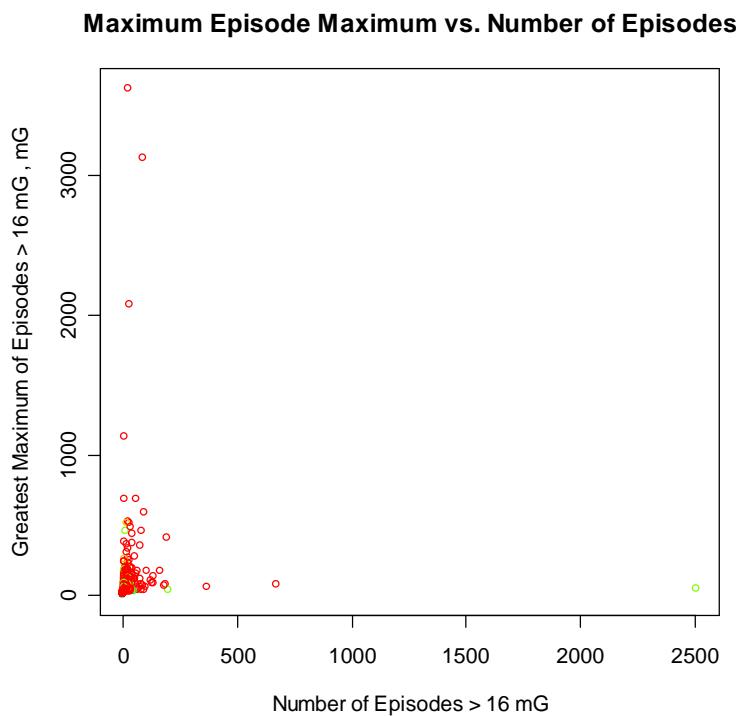
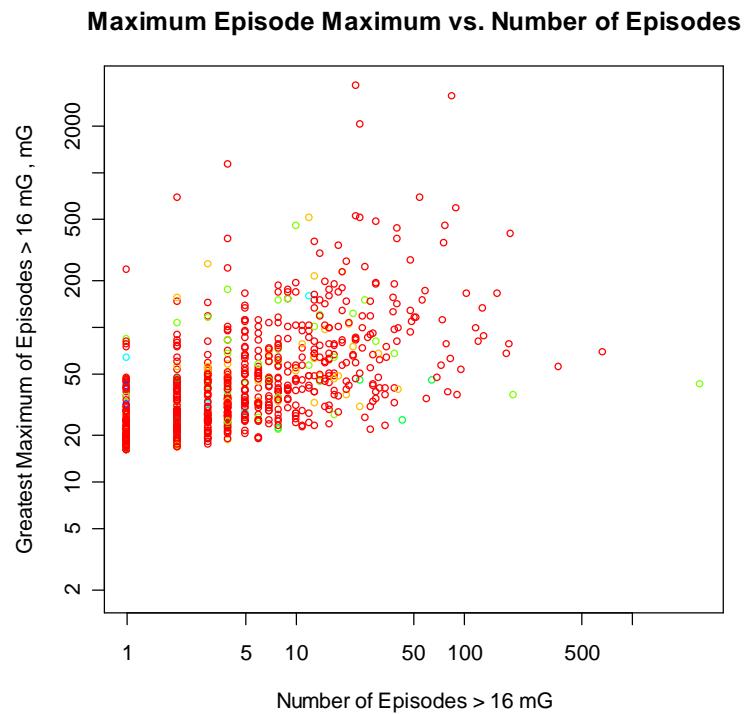


Figure 3.14.6: Highest episode maximum versus number of episodes for episodes with maximum exceeding 16 mG (log scale)



3.15 Relationships between average magnetic field in “highest-exposure” episodes and attributes of such episodes

In this analysis, episodes with the highest integrated exposure are considered. These are episodes with any maximum field (in contrast to other analyses that examined episodes with maximum fields exceeding 16 mG). All episodes for a subject are sorted by integrated exposure, and then the upper-most episodes sufficient to sum to a threshold of either 2 or 4 mG-days are considered the “highest-exposure” episodes. Figures 3.15.1 through 3.15.4 present scatter plots of average magnetic field of these episodes versus the number and average duration of these episodes. Each data point in the scatter plots represents a subject.

Figure 3.15.1: Highest-exposure episodes versus mean magnetic field of episodes for subjects with 2 mG-days or more of integrated exposure

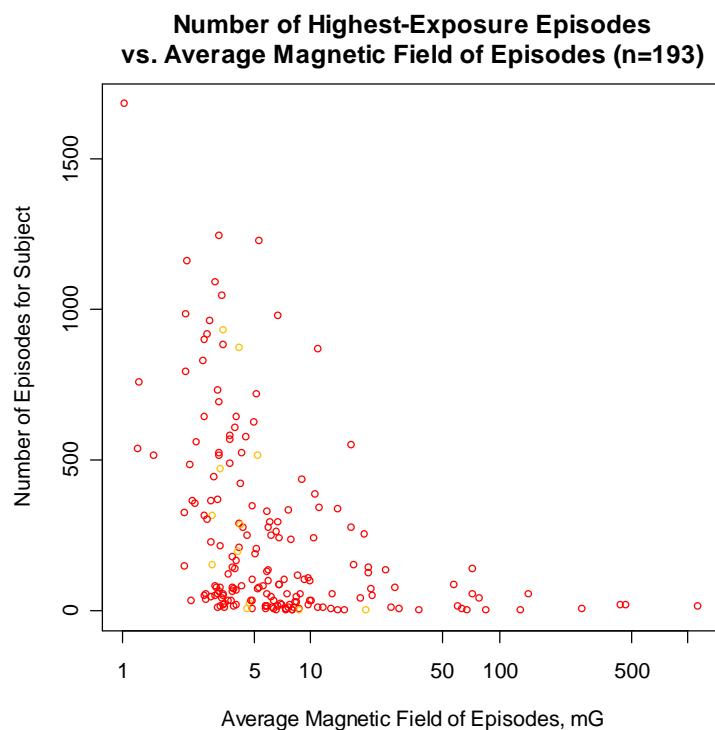


Figure 3.15.2: Average duration of highest-exposure episodes versus mean magnetic field of episodes for subjects with 2 mG-days or more of integrated exposure

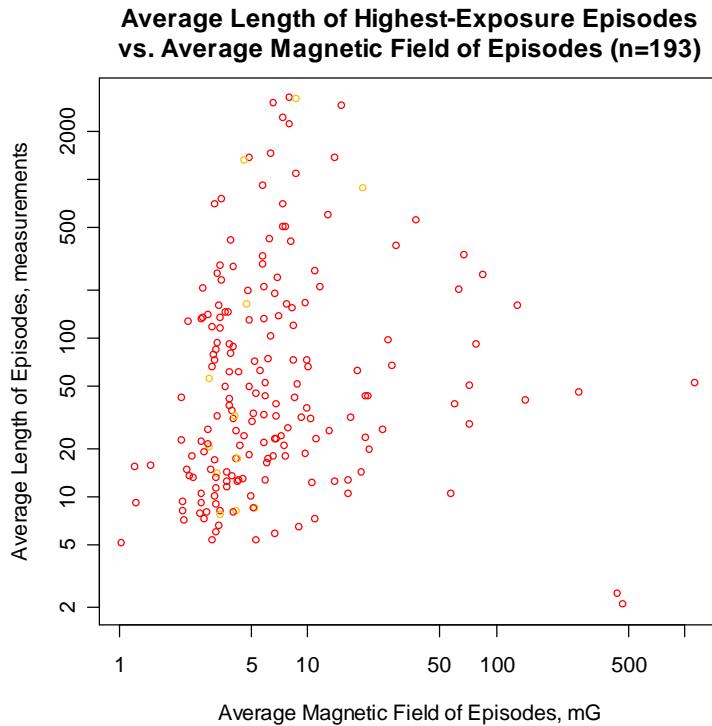


Figure 3.15.3: Highest-exposure episodes versus mean magnetic field of episodes for subjects with 4 mG-days or more of integrated exposure

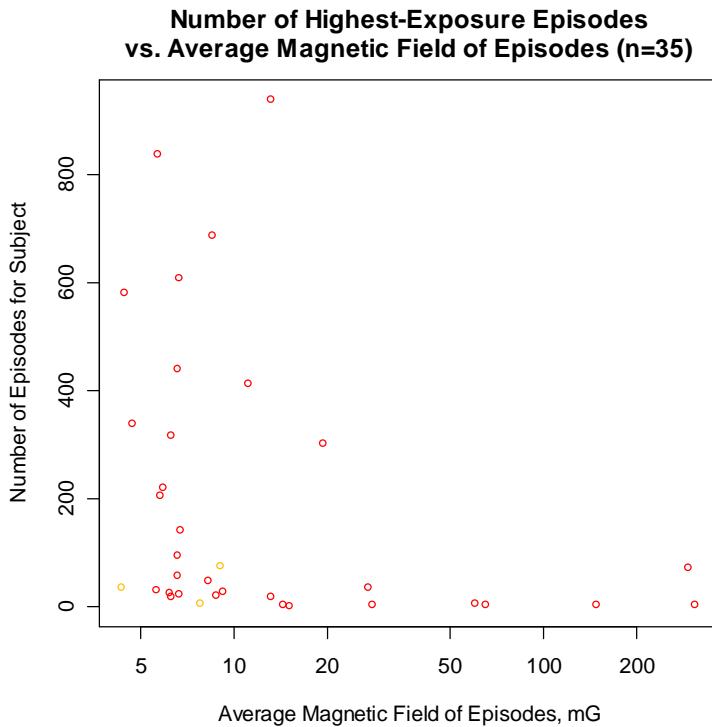
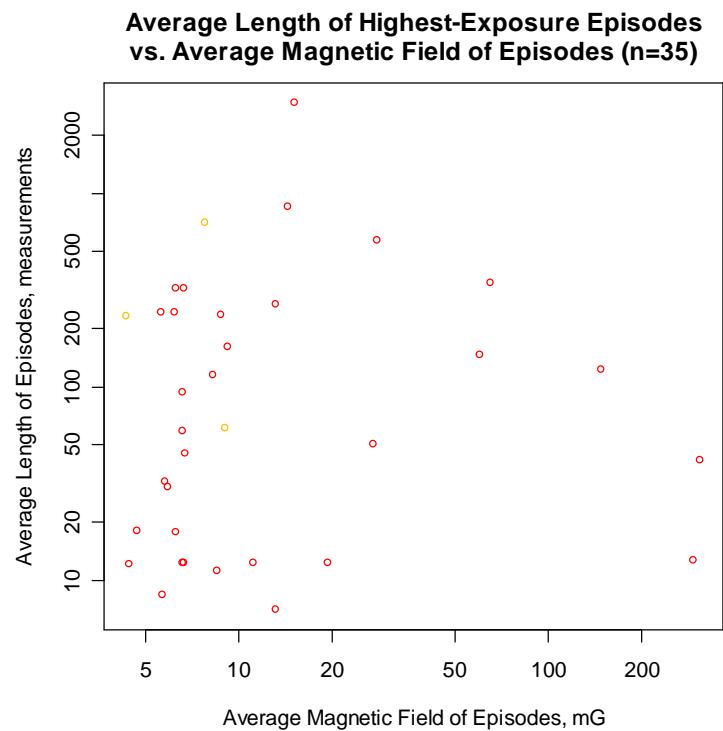


Figure 3.15.4: Average duration of highest-exposure episodes versus mean magnetic field of episodes for subjects with 4 mG-days or more of integrated exposure



3.16 Time-series plots from subjects with various quantities and characteristics of episodes

Sample time-series plots are presented in the Appendix in Figures A.1 through A.21. Figure A.1 presents the time-series of the subject with the most episodes (668) with maximum > 16 mG. Figures A.2 through A.6 are a random sample of subjects with only one episode with maximum > 16 mg without regard to duration. Figures A.7 through A.11 are a random sample of subjects with only one episode > 16 mG that lasted more than a minute. Figures A.12 through A.16 are a random sample of subjects with exactly two episodes with maximum > 16 mG. Figures A.17 through A.21 are a random sample of subjects with greater than 30 episodes with maximum > 16 mG.

4.0 OBSERVATIONS

The objective of this project was to produce a set of analyses of PE data from the Kaiser SAB Study. It was beyond our scope to thoroughly investigate the results and interpret them in light of the findings of the Kaiser SAB or other studies. Nevertheless, a cursory examination of the results in Section 3 provides some quantitative observations. Many of the trends noted here have been observed in other data sets: for example, the upward trend of TWA exposures with wire code category and the correlation between TWA exposure and a constellation of summary measures related to maximum or high exposures. The observations presented here are in no way complete. We hope that others, through their own examination of the data, will discern other trends, expand on these observations, quantify the findings, and suggest further analyses.

Our observations are presented in the same order and with corresponding sub-titles to the analyses in Section 3.

4.1 Cumulative Distributions

The cumulative distributions indicate that 24-hour TWA exposures of broadband and harmonic fields approximate lognormal distributions. This is consistent with exposures measured in other large studies collecting magnetic-field PE data. Very few subjects exhibit TWA exposures above 8 mG or maximum exposures above 500 mG. About 25 percent of subjects had a maximum above about 50 mG and as indicated in the Kaiser SAB results about 75 percent had a maximum above 16 mG.

There are no obvious distinctive groups identified by discontinuities in the distributions for any of the summary measures.

4.2 Correlation between Selected Summary Measures

Scatter plots did not indicate strong correlation between the Maximum summary measure and other summary measures. Visual assessment of the scatter plots shows a much better correlation among the highest percentiles than between the Maximum and the highest percentiles. There does not appear to be any correlation between the Maximum and time spent at work or at home.

4.3 Rank-order Correlation Coefficients

The pairs of continuous summary-measures shown in Table 4.3 exhibited rank-order correlation coefficients above $R = 0.75$. Exposure measures with the possibility of zero values for large numbers of subjects, such as Fraction above 16 mG, have not been included.

Table 4.3: 24-hour Magnetic-field Summary Measures with Rank-order Correlation Coefficient (R) above 0.75.

Summary Measure 1	Summary Measure 2	R
TWA Broadband	TWA Harmonic	0.78
TWA Broadband	90 th Percentile	0.91
TWA Broadband	95 th Percentile	0.86
RCM	Maximum	0.91
90 th Percentile	95 th Percentile	0.93
95 th Percentile	99 th Percentile	0.77

4.4 Multi-linear Regression across Environments

To compare coefficients for summary measures with fraction of time in environment and interpret the regression coefficients, each summary measure must be examined separately. The nature of the metric will determine its relationship to fraction of time within environment. For example, for equal fields in all environments 24-hr TWA would have coefficients equivalent to fraction of time; for metrics involving counts of events the coefficients will all approach one.

4.5 Comparison of Cumulative Distributions with 1000-Person Study

The distribution of 24-hour TWA exposures in the Kaiser SAB Study is higher than that in the 1000-Person Study. This difference may be attributable to the primarily urban nature of the study area for the former study. The 24-hour Maximum exposure distribution was higher for the 1000-Person Study. This may be attributable to the shorter sampling interval for the meter used in the 1000-Person Study: 0.5 second versus 10 second in the Kaiser Study.

4.6 Comparison of “typical” and “atypical” days

There was essentially no difference in the distributions of summary measures for “typical” and “atypical” days.

4.7 Comparison of “working” and “non-working” subjects

Exposures for subjects with time in the Work environment were higher than those for subjects with no time in the Work environment.

4.8 Comparison of days with and without maximums > 16 mG

There were statistically significant differences between all summary measures for days with Maximum > 16 mG and those with Maximum < 16 mG. This is not surprising since selection of a threshold for the Maximum strongly influences the other 13 “matrix” summary measures considered in this analysis.

4.9 Investigation of the influence of EMDEX serial number on the fraction of 24-hour day above 16 mG.

There were no apparent differences associated with the EMDEX unit used. However, there were limited numbers for many EMDEX units: the number of days that an EMDEX unit was used varied from one to 45.

4.10 Investigation of the influence of various neighborhood characteristics on the “matrix” summary measures for 24-hour and Home exposures.

As observed in several other studies there was a trend of increasing exposures for 24-hour TWA with higher wire code categories. This trend carries over somewhat for summary measures correlated with 24-hour TWA. Wire code category had little or no effect on other summary measures.

There was no apparent effect of Transformer Wiring on 24-hour summary measures. There was little or no effect of Block Type, Street Type, or Train Nearby on any summary measures.

For Home exposures, both the TWA and Harmonic summary measures exhibited an increase with higher wire code categories. In the VHCC wire-code category there was a marked increase in the Fraction of Measurements > 4 mG but not in the Fraction of Measurements > 16 mG. No other Home summary measures exhibited significant changes with wire-code category.

There were slight increases in the Home TWA and Harmonic summary measures for wye versus delta Transformer Wiring and for rectangular blocks. However, no other summary measures seemed to be affected by these parameters. There was no apparent effect of Street Type or Train Nearby on Home summary measures.

4.11 Investigate the ability of the front entrance spot measurement to predict various indoor measurements.

Linear regression did not show the Front Door Spot measurement to be a reliable predictor of any indoor summary measures: Multiple R-squared < 0.2 for all summary measures.

4.12 Characterization of highest fields contributing to average exposures exceeding 2 mG and 4 mG

An examination of subjects with integrated exposures greater than 2 mG-day indicates that about 5 percent of them accumulated this much exposure in fields above 20 mG and about 50 percent accumulated this much exposure in fields above 2 mG.

For subjects with integrated exposures greater than 4 mG-day, 5 percent accumulated this much exposure above 100 mG while 50 percent accumulated this much exposure above 4 mG.

4.13 Investigation of the sensitivity of episode-related parameters to the number of episodes experienced by the subject.

The duration, accumulated exposure, and average field of episodes with maximum field above 16 mG do not seem to be related to the number of such episode that a subject had during a 24-hour period or during time in any environment.

4.14 Relationship between number of episodes with maximum > 16 mG to various summaries of those episodes

The longest duration, the highest exposure, and the highest maximum of episodes with maximum field > 16 mG does not seem to be related to the number of such episodes that a subject had.

4.15 Relationships between average magnetic field in “highest-exposure” episodes and attributes of such episodes

There was no apparent relationship between the average magnetic field in “highest-exposure” episodes (i. e., those needed to accumulate 2 mG-days of exposure) and the number and duration of such episodes.

5.0 REFERENCES

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**APPENDIX:
SELECTED TIME SERIES PLOTS**

(The time-series plots are provided in a separate PDF file named “appendix.pdf”)

